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Original Contributions.

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CHRONIC ALCOHOLISM; A CLINICAL STUDY.

*A Paper read before the Hunterian Society in London, on April 24,*  
by R. HINGSTON FOX, M.D., M.R.C.P.

ALCOHOLIC poisoning, alike in its severer and in its milder forms, is so common as to come often within the experience of all. During late years great strides have been made in the accurate knowledge of the diseases thus caused, as was shown in Dr. Payne's opening address to the recent discussion upon chronic alcoholism at the Pathological Society in London. The histological knowledge thus displayed has tended to bring into stronger relief the duty lying upon us as practitioners of medicine promptly to diagnose and honestly to treat this form of poisoning.

At the Pathological Society the clinical aspects of the question received of course little attention, and it is from a clinical standpoint that I would now approach the subject. I propose to trace an outline of some of the slighter manifestations of alcoholism as they appear, firstly, in out-patient practice, and, secondly, among private patients. The scope of the present paper will exclude, besides acute alcoholism in all its forms, paroxysmal alcoholism (which may be strictly called dipsomania), and heavy drinking in persons of fine physique and taking active exercise. The habitual use of alcohol in such quantity as to produce a slow poisoning effect will alone be considered.

In out-patient practice the class that most frequently presents itself is that of married women, either childless, or who, with or without children, have reached the period of the menopause. Next to these, in my experience, come women who stand and sell in the

street, and men with a like occupation, also some shopkeepers. Those whose avocations involve active exercise less often show this form of poisoning, although they may consume large quantities of malt liquors.

Let us take the first class as a sample, the married woman of middle age. She presents an untidy and dirty appearance. Beneath a passable mantle, we find, on coming in due course to examine the chest, ragged clothing, pinned rudely together.

The story of her complaints is a long one. I have often noted down the list of symptoms as the voluble tongue gave it forth. Such patients commonly talk much, for alcoholic drinking goes with idleness, and idleness means, in this class of persons, gossip.

Her complaints are largely of subjective symptoms, and especially of aches and pains. These are located in the chest, the side, the back, the head, the thighs. Cough is almost invariably present, and it is generally hard and dry, teasing the patient, who finds it very "hard to get up the phlegm." Then comes the catalogue of dyspeptic troubles—bad taste in the mouth, sick feelings, distension and oppression at the epigastrium, palpitation, flatulence. Lack of appetite is a prominent complaint, and on inquiry it is generally found that no breakfast is taken, or only a cup of tea. The bowels commonly act several times in the day, beer being an aperient.

Nervous symptoms are in plenty; such as "weakness," depression of spirits, "all-gone" feeling, heats and flushes; "I feel as if I had done something dreadful," or, "as if something dreadful were going to happen." Bad dreams, cramps, trembling feelings, giddiness, all find their frequent place in the catalogue.

Such are the complaints which persons who are suffering the effects of the slow poison of alcohol in their tissues make to us. Not one in a hundred complains of the real cause of her disorder.

We proceed to examine our patient, and find her often stout in figure, seldom emaciated, but the subcutaneous tissues feel watery and loose, and the muscles are flabby. Her skin is usually flushed and moist. In drinkers of long standing a dirty pallor succeeds to this flushing, and often the lips and inside of mouth and throat reveal anæmia when the cheeks are red. Dilated capillaries are in some cases seen, but the red bloated countenance belongs to a different class, that of large excess. The hands are moist, warm, rather swollen, of a dull red colour, and unsteady in movement. The shut eyelids are tremulous, as in hysteria.

Perspiration over the whole surface is usually in marked excess. Some patients complain much of the sweats, and can never keep their hands dry. The consequent evaporation causes a sensation of chilliness, leading the subject to cover her skin more thickly, and to avoid draughts. Those who take alcohol



freely may often be observed to be urgent in closing the windows of a railway carriage. The excess of perspiration appears to greatly increase the liability to that kind of rheumatic pains which is set up by chills of the skin.

But the pains so frequently complained of are probably in large part neuralgic—that is, they occur in the course of nerves, or in the area of their distribution, and are more or less paroxysmal. Such neuralgiæ may be directly connected with the poisoned state of the blood, just as neuralgia is common in anæmia and mal-nutrition. The shifting character of the pains seems to forbid the supposition that they represent an early stage in the neuritis which is found in some alcoholics of long standing. The liability to pain is in some cases so great as to suggest that the sensory centres themselves are at fault, and that the continued action of alcohol upon these centres is to increase their irritability.

The tongue varies much ; it is, however, generally large, convex on the surface, and seldom quite free from fur ; it may have red edges and indentations. But there is one symptom which rarely fails—tremor of the muscular substance. This tremor is both coarse and fine—unsteady movements of the muscles which work the organ, and intermittent contractions of the muscular fibres of which it is composed ; the latter presenting a uniform rippling of the tongue substance. It is to be distinguished from the spasmodic movement of many children's tongues, and the special tremors of general paralysis and insular sclerosis. So surely does tongue tremor attend the presence of alcohol in the tissues in the patients under review that one may know whether they are abstaining by its absence or presence. A few days of abstinence in recent cases restore the healthy muscular tone. It must be added that a tremor, not readily distinguished from this, is found in hysteria and states attended with low nervous tone.

The irritability of the alcoholic tongue is well-known. If we lay the spatula ever so gently upon the surface in order to obtain a view of the fauces, spasmodic action of the pharyngeal muscles is at once set up, vomiting may be threatened, and our examination has to be promptly ended. This reflex irritability is no doubt part of a general disorder (catarrh) of the mucous membrane of the tongue and fauces due to soaking in alcohol.

The pulse is frequent, the artery large, sometimes tortuous and cordy ; the beats seem forcible to the finger, but they are discrete, and compressible with but slight pressure. High arterial tension, from degeneration of the kidneys and arterio-capillary system, comes later ; in slow alcoholic poisoning, free

as yet from appreciable organic disease, the arteries are relaxed and the blood pressure low.

This pulse condition and the moist, warm, unsteady hands, are very characteristic, and if we were compelled, as in some Eastern harem, to diagnose our patient's disorder from one hand thrust through a curtain, it might probably be done.

As to the heart we find little besides the quickened rate. The sounds are wanting in definition, much as in pyrexia, the heart muscle sharing in the irregularity and tremor of the voluntary muscles. A reduplication of the first sound is often heard in the region of the apex beat and between this and the sternum, but I cannot say whether this is more common than it is in non-alcoholic subjects. The second sound is usually loud, and becomes accentuated in the region of the aortic orifice when the tension is raised.

This unnatural state of the circulation may long exist without the general system seeming to suffer much in consequence. The nutrition is not greatly impaired; the various organs continue to act without signs of serious disorder. The digestive organs and the nervous system, which earliest show disturbance of function, are, it would seem, affected more by the direct action of the alcoholic poison upon their tissues, than indirectly by the disordered circulation of blood through them.

In the meantime, however, the reserve power of the heart is being taxed by overstimulation, and we are all familiar with the greatly lessened resistance shown by alcoholic patients to acute diseases. In other cases, when the poison is withdrawn, one cannot but admire nature's recuperative force, displayed in the speedy return on the part of the circulation to a more natural condition. The heart, which was habitually making 95 to 110 beats per second, in the course of a few days or weeks records only 60 or 70; the perspirations cease, and the muscular tremor nearly disappears.

As regards the effect of alcohol upon the kidneys this much depends upon its form. In beer-drinkers, if the skin and bowels act freely as they usually do, little or no appreciable injury to the kidneys is evidenced for many years. The urine is often concentrated and deposits urates, but there is not in my experience commonly any albumen present.

Space does not allow of more than a reference to the tendency to catarrhs of the mucous surfaces which is seen in these alcoholic subjects, especially to gastric, pharyngeal, and bronchial catarrh. And I can only mention a general impression that the catamenia are more frequent and more profuse in beer-drinking women.

The above outline of the milder form of alcoholism as seen in out-patient practice, is drawn from many living examples. Let

it be remembered that it is not of heavy drinkers I am speaking, but of those who habitually drink at and between meals, it may be never to intoxication, yet who nevertheless come to show the unequivocal signs of alcoholic poisoning.

The diagnosis is easy. Debility and nervous atony from causes other than alcohol, bear, indeed, at times, a superficial resemblance to the action of this poison. I have noticed such a condition in the early months of lactation in weakly women, and again as a result of sexual over-stimulation in young adults. But the train of alcoholic symptoms is too well marked to be readily mistaken.

In private patients, as distinguished from hospital practice, the effects are often more disguised. Most of us can look back on cases which sorely puzzled us as young practitioners, when our treatment was laboriously directed to the relief of dyspepsia, the soothing of irritable nerves, the cure of headaches, &c.; and it only dawned late upon us that the *fons et origo mali* was the alcohol habit. And I cannot doubt that it has become with most of us, as it has with myself, a tacit rule to suspect alcohol, as we suspect hysteria, when a case does not progress fairly, or when there is something about it of mystery or of doubt.

The symptoms in these cases are less easy to trace, because there is a more systematic attempt to conceal their cause. And as the drink of the middle and upper classes is more usually of spirituous than of malt liquors, we find some diversity from the conditions noted above. The digestive organs are more profoundly disordered; the bowels are often constipated, the tongue much furred, the liver acts ill. Furthermore, the kidneys are much sooner affected: albumen appears in the urine at an earlier stage. And lastly, anæmia is more marked; the dull pale skin and mucous membranes tell the tale of hindered oxygenation.

Whilst habitual spirit-drinking thus rapidly destroys the efficiency of the organs, it is surprising to observe how little damage may be caused by copious libations of spirit if there be intervals of abstinence. I once made a post-mortem examination of the body of a gentleman, aged fifty-seven years, who had for many years indulged in bouts of drinking, in which he would consume a bottle or more of brandy in the day. These bouts had become of late years frequent, perhaps one or two in a month. In the intervals he abstained and lived a healthy active life. He died suddenly whilst in a state of intoxication. To my surprise the various organs appeared to the naked eye almost uniformly healthy; the liver in particular was smooth, of full weight (sixty-nine ounces), and not toughened in consistence. One could only attribute the comparative immunity from damage to the inter-

mittence of the exposure to the poison, the intervals of rest allowing the organs to regain their healthy tone.

Another case illustrates the low power of resistance possessed by spirit-drinkers. A lady aged forty years was the mother of many children, having had triplets once, twins, I think, twice, and conceptions in rapid succession. She had fallen into weakly health, and finding cold brandy-and-water reviving, had come to depend upon this, taking very little food for several months before her death. Erysipelas attacked her in the face when she was five months pregnant. On the fifth day abortion took place, followed by sheer collapse, neither hemorrhage, pain, nor other symptom attending it, and she died within fourteen hours. The steady failure of the circulation, which no means of stimulation—although these were varied, and vigorously applied—seemed to have the slightest influence in checking, was very remarkable. The tissues, built on alcoholic blood and scanty food matters seemed powerless to resist the specific poison of erysipelas, the local signs of which were nevertheless not severe.

A very few words must be added upon another prominent effect of alcohol, as it is seen in the upper classes of society. I refer to the perversion of the moral senses. It is a common experience that our alcoholic patients are selfish, deceitful, and untrue, that their instincts are diseased, and their aims in life subordinated to the craving for the poison. It would be an interesting study to trace the origin and growth of this moral perversion. We should have to discern its beginnings, when the will chose present gratification rather than to obey the voice of conscience and reason. We should see how, under the bondage of a morbid will, the mental vision becomes narrowed, egotism casts out altruism, the present excludes the future, until the alcoholic, of trained and cultured faculties, sees everything from the subjective standpoint of his own present pain or pleasure. A lady addicted to alcohol saw her husband suffering acutely from liver disease, "He does upset me so; he makes me so ill, you can't think," such was her remark upon her husband's pangs. We should have to apportion their due share in the perversion of the moral senses, to the habitual outrage upon conscience and reason involved in yielding to present impulse, and to the blunting of the higher faculties by the physical action of the poison upon the nervous centres.

In the treatment of this form of alcoholism, it appears to me especially incumbent upon us to use honesty and candour with our patients; to point out the cause of their disorder, and to urge the necessity for its removal. Those who have once taken alcohol in excess find it difficult, perhaps impossible, to take it in moderation. Hence entire abstinence is the only practical



remedy. And whilst permanent recovery from the alcohol habit is a rare event in the middle and upper classes, I have met in out-patient practice with a good many instances of apparently genuine and permanent abstinence due to medical recommendation. I submit that we are shirking our bounden duty as practitioners of the healing art if we are content with palliative measures, and leave the cause untouched.

As regards treatment, then, I would set abstinence in the first place. Coffee and cocoa will take the place of alcohol with our out-patients, and bitter tinctures at meal times form a useful substitute with those in a higher social station. I have under observation an old gentleman, the subject of chronic alcoholism, who has been taking for over six months mixed tinctures of calumba and cinchona at his meals in the place of other stimulants, with great benefit to his general health.

Drug treatment occupies a secondary place. The common mixture containing bicarbonate of soda and infusion of gentian, almost always relieves the stomach; it may be varied with rhubarb, chiretta, and other bitters; ammonia may also be usefully added, and nux vomica sometimes seems to clear the tongue. In the nervous cases one finds hydrocyanic acid helpful in addition, but especially bromide of ammonium. An effervescent mixture with citrates, ammonia, and bromide of potassium, is very useful for delicate ladies. Plenty of water or watery drinks is to be recommended in order to wash the alcohol out of the tissues.

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The reading of the preceding paper gave rise to a lively discussion, in which the President of the Society (Mr. R. Clement Lucas), Dr. T. Rowing Fendick, and other Fellows took part. Mr. F. M. Corner (Poplar) spoke from a large experience of the moral degradation of alcoholic patients, and both he and Dr. E. G. Gilbert (Hackney) urged the need of further legislative powers to deal with drunkards for the benefit of wives and children. Dr. Walter Fowler described the enlargement of the lingual tonsils in alcoholism, and advocated strychnine as a help to abstinence. Dr. Humphreys considered that dyspepsia often pre-existed in these cases, especially ovarian dyspepsia, for which he advised half-drachm doses of tincture of *actæa racemosa*, or hypodermics of strychnine. Dr. G. B. Hicks (Hackney) and Dr. Fred. J. Smith discussed the hereditary features of alcoholism (the President had seen it in three generations); a mental degeneracy, the result of alcoholism, is handed down, rendering the subject less able to resist the temptation to drink. Dr. A. T. Davies recalled efforts of genius made whilst under the influence of alcohol (here the exception surely "proves the rule": if some of the finest, so also much of the vilest, poetry has been thus composed). The President contended that the fine old country gentlemen who drank largely were not morally perverted — rather *in vino veritas*; and that if women showed such perversion it was because their natures were weaker. Dr. Hingston Fox, in his reply, rallied the last speaker upon his aspersions on the female sex; said that *inter vina mendacitas* might often be said of the drinkers; and that if plenty of food and hard exercise seemed in some cases to minimise the effects of alcohol, the latter still tended to injure and to shorten life.

## EXPERIMENTS AS TO THE ACTION OF ALCOHOL ON THE BRAIN.

By J. J. RIDGE, M.D., B.S. (Lond.), *Physician to the London  
Temperance Hospital.*

“HALF-A-PINT of beer can't do anybody any harm.” This is regarded as a self-evident truth by non-abstainers. Half-a-pint of beer, or a glass of wine, or a couple of tablespoonfuls of spirits, all containing about half-an-ounce of absolute alcohol, are considered such extremely moderate quantities of these beverages that it seems absurd to suppose that any injury can result from so small a dose. The fact that so many millions and so many generations of the human race have taken these drinks, and pronounced them good, is considered by many (even by some who might have been expected to reason better) conclusive proof that they must do good rather than harm. How is this to be settled? Is the declaration of the beer-, wine- or spirit-drinker, that he feels all the better for his glass, sufficient proof? Is the common custom of millions enough to prove that the drinking of alcohol is beneficial either to the individual or the race? If it be, then the similar declaration of the opium-smoker, the bhang-consumer and the victim of every other narcotic, who all cherish the profound conviction that their particular drug is both necessary and beneficial to them, must be accepted as equally conclusive. And so must the widely spread and extending use of these drugs, and tobacco, be taken to prove that the vitality of the nation by whom they are used is thereby increased.

It is sufficient to state the proposition thus to expose the absurdity of the plea. It is perfectly certain that the use of a narcotic cannot become common and general without injury to the race, and it is equally certain that any one of these narcotics has the power so to alter the nervous system of the individual who uses it habitually as to cause certain uneasy sensations when it is abstained from, sensations which are relieved directly by a dose of the drug. Hence the existence of a longing desire for a narcotic drug is one of its essential symptoms. The feeling of benefit or necessity, the difficulty, however slight in some cases, of abandoning its use, cannot be absent if we are dealing with a narcotic. Alcohol is no exception to the rule. There are those in whom this desire or craving overmasters every consideration; but there are thousands more in whom this overmastering craving is in process of development, and vast numbers besides in whom it will never reach such a height, but is in its

first or second stages. These are the people who "could give it up, you know," but who never want to do so, and who never do. The difficulty in persuading people that alcoholic liquors do not do them good, or in getting them to give them up for other people's sake, arises chiefly from the fact that alcohol is a narcotic, like the rest.

It seems to me useless to attempt to argue with a man's feelings. One can never convince him that he does not feel this or that. The only thing to be done is to convince him that his feelings are misleading him.

As to the influence on the race, the proof of that is being slowly accumulated by the results of life insurance societies. But as to the influence on the individual, experiment can alone settle this question. *The man must be tested*, and if he is equally as good a man, that is, if his powers are quite as great, with alcohol as without it, then we must admit that no immediate harm is produced, and that the only injury is remote and gradual.

I have already published the results of experiments made seven years ago, which showed that the senses of sight, common sensation and of the muscles, are blunted by alcohol in doses of from two to four drachms. These experiments have been repeated and confirmed by others. Dr. Richardson has also found that the hearing is affected in a similar way. It needs no experiment to prove that considerable quantities of alcohol blunt the senses. That is seen every day and the observation is as old as Solomon, "They have stricken me, and I felt it not." It is equally obvious that large doses blunt the powers of the mind, and render the brain less able to perform its functions. But the influence of smaller doses has been a matter of much dispute. It is very difficult to bring mental operations to any objective test. And it is very certain that anyone who is experimented upon may, if he chooses to do so, vitiate the conclusion by voluntary delay on either side. A certain test being devised it is clear that an individual opposed to total abstinence may wilfully perform it worse than he could in order to appear better after the dose of the liquor which he loves. The man's own sensations are, as we shall see, no criterion whatever. An alteration in his feelings may be nothing more than a benumbing of uneasy sensations, or a removal of inhibiting currents.

The action of alcohol on the nerve tissue is one of weakening or gradual paralysis from beginning to end. Dr. Hughlings Jackson and others agree in this, that the powers of the mind are gradually developed from childhood to manhood, and that the last to be developed, those parts by which judgment and will are exercised, are the least stable and the first to be paralysed by alcohol.

Dr. Lauder Brunton \* has published the results of some interesting experiments performed by Kraepelin, in 1882. These are so decisive and so important that they ought to be stock arguments of every total abstainer. The object of the investigation was to discover the time required for the performance of mental functions, and the effect of drugs upon them. Nerve force travels much slower than electricity, and hence it takes an appreciable time for a signal to be seen, recognised and returned. If the time is longer when under the influence of a drug, it is clear that this drug has interfered with the production and transmission of the nerve current. Kraepelin performed three sets of experiments—(a) to find the time required for simple reaction, that is for the message to go in and be returned, (b) for discrimination, (c) for decision.

The time required for simple reaction was determined by marking automatically upon a drum revolving at a uniform speed the precise moment at which a coloured flag was exhibited. As soon as the person experimented on perceived this he pressed a key, which, by electricity, made another mark on the drum; this had meanwhile revolved a certain distance according to the time taken up by the passage of the impulse from the retina of the eye to the brain, its recognition therein, and its transmission to the motor nerves and muscles of the arm which pressed the key.

(b.) The time required for *discrimination* was tested in a similar way, but in this case there were two flags, red and blue, and the signal was only to be given when the flag was shown which had been previously agreed on. The time taken up in considering this point prolonged the interval, and the difference by which this exceeded the time in the previous experiment indicated the time consumed in this process.

(c.) The time required for *decision* was arrived at by having to give a different signal for the red and blue flags respectively. Hence the person had not only to distinguish them, but to decide which key to press.

Several drugs were experimented on, but I wish to call special attention to the fact that alcohol prolonged all these periods. It took longer both to signal, to discriminate, and to decide, in fact all these mental processes were slower after taking it. This is entirely in accordance with previous observations, and there can be no doubt whatever that the *rôle* of alcohol is that of a narcotic. But there is one most significant remark which I quote from Dr. Brunton. He says, "The influence of alcohol upon psychical processes is curious; for while it renders them much slower, the individual under its influence believes them to be much quicker

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\* "A Text-book of Pharmacology" (Macmillan & Co.)



than usual." This sentence deserves to be committed to memory by every abstainer in the kingdom, and quoted as the most rational foundation for abstinence. It shows how able alcohol is to deceive and weaken the judgment, and proves that the feelings and fancies of the individual under its influence are not to be trusted, and do not indicate his actual condition.

As a corroboration of this narcotic action of alcohol I have made several experiments, chiefly on myself. These consisted in endeavouring to pass a pointed stick through a swinging ring, counting the number of swings between each successful endeavour and adding these together when sixty had been accomplished. A certain dose of pure rectified spirit was then taken, and after fifteen minutes the number of swings required to accomplish sixty more swings was counted. I append the result of the experiments made on myself because I can guarantee their *bona fide* performance and accuracy, and they were all performed after sufficient skill had been acquired by practice.

Alcohol.				No. of swings before.	No. of swings after.	Percentage of increase.
1 drachm	...	...	...	153	169	10.5
				113	126	11.6
				112	123	9.8
2 drachms	...	...	...	166	194	16.9
				145	156	7.5
				132	154	16.6
				125	146	16.8
3 drachms	...	...	...	134	185	38.0
				115	142	23.5
4 drachms	...	...	...	141	204	44.6

The progressive increase in these figures with larger doses is a good indication of the action of the alcohol, and roughly indicates the comparative amount of injury done. The influence of one drachm is decisively indicated, and I found two drachms quite enough to produce transient giddiness. There were considerable variations in the number at the various sittings, but they are due to many causes, such as time of day, amount of light, condition of brain and body, &c.; but this difference does not affect the relative result with and without alcohol. Each experiment was done on a different day. Several functions of the brain and spinal cord are hereby tested, such as—

1. The steadiness of the hand and co-ordination of the muscles.
2. The sharpness of the sight.
3. The accuracy of the judgment.
4. The rapidity of thought (perception and decision).
5. The rapidity of muscular action.
6. The power of self-control.

It may be taken as proved that alcohol injures the capacity of self-control, or temperance, which cannot be as great or complete with alcohol as without it. The largest quantity taken, half an ounce, is about the amount contained in half a pint of beer, a small glass of wine, or two tablespoonfuls of brandy and water, and hence these are clearly capable of doing considerable harm to the nervous system.



## Miscellaneous Communications.



### THE ANNUAL MEDICAL BREAKFAST.

ON Friday morning, 16th August, in connection with the visit of the British Medical Association to Leeds, Sir Edward Baines, Mr. Arthur Pease, and the Rev. Dr. Hannay, vice-presidents of the National Temperance League, entertained a number of the local friends of the temperance cause to a public breakfast in the Town Hall, Leeds, for the purpose of meeting officers and members of the British Medical Association, of whom nearly 200 accepted the invitation.

A capital repast was served, and at its conclusion an adjournment was made to the Crown Court, where the meeting was held.

Sir Edward Baines presided, and was supported by the Rev. Dr. Hannay, Dr. Norman Kerr, Dr. J. J. Ride, Dr. F. R. Lees, Dr. Hare, Mr. Robert Rae (secretary National Temperance League), and others.

Mr. RAE, in opening the proceedings, said he was sure they would all be glad to see their venerable friend Sir Edward Baines, now in his ninetieth

year, and, he thought, his fifty-second year of total abstinence—and a very good specimen he was of the practice which they had come that morning to advocate. Mr. Arthur Pease had sent him a telegram on the previous night stating that he was unexpectedly prevented from being there that morning. Up till the day before he quite expected to be there. He was glad that the Rev. Dr. Hannay, the other gentleman who united in that invitation, was present and would address them. He wished just to remind them that those Temperance breakfasts in connection with the British Medical Association were instituted in Leeds exactly twenty years ago. He was glad to see one or two gentlemen present who were present on that occasion when they met at the Great Northern Hotel, near the Great Northern Railway Station. Sir Edward Baines and Dr. Hannay were both present then and now, so that he regarded that meeting as being somewhat of an historical character. The movement amongst medical men

had not made very great progress at that time, but a few weeks after that meeting twenty years ago they started the *Medical Temperance Journal*, which had now completed its twentieth volume, and contained, as some of them knew, a large mass of information illustrative of the progress of the temperance movement amongst the medical profession. Two years after that, in 1871, there was the medical declaration, which was drafted by the late Dr. E. A. Parkes, of venerated memory, and was signed by the leading physicians and surgeons of their London hospitals; so that period of twenty years ago might be regarded as the commencement of a very important movement amongst the medical profession, and as he had attended every one of those breakfasts which had been held in England, and also two held at Edinburgh and Dublin, he could testify to the great value that those meetings had been to the temperance cause. He was constantly meeting at these annual breakfasts with medical men who told him that they had abstained from the date of some particular meeting which they might specify, and one of the special facts, he thought, of those gatherings was that they had always a large proportion of the younger members of the profession who were open to hear what they had to say to them, and many of whom in their subsequent lives practised total abstinence and endeavoured to help other people to abstain also.

Sir EDWARD BAINES, who had a hearty reception, said: I am exceedingly rejoiced to meet so many of the friends of total abstinence in this town. I remember very well every forward step that has been taken in this good cause amongst us, and we have, I hope, done something to bear testimony to the virtues of total abstinence. I myself did not begin as a total abstainer. I began as a moderate man, and so went on for a few years, but it occurred to me that I might do considerably more good if I did find that I could totally abstain from all intoxicating liquors, and I have, at all events, tried the experiment. I did try the

experiment, and began for a month, then went on for another month, and then for another month, and then for a year or two, and now it is fifty-three years that I have gone on with my total abstinence, and during that time I have never made any kind of excuse for taking any liquor that would be considered as a violation of my pledge—for I made a pledge, entirely and totally, by night and by day, in sickness and in health, always to abstain, and never found the least inconvenience from it. I testify that because there are those who, I believe, think they may begin and may go on for a little while, and then may abstain, and then give up the practice. I entirely dissent from the wisdom of that step, and I testify that my own experience does not justify it in the slightest degree. I think it was in the year of the Queen's accession to the throne that I took the step, and now that she has been celebrating her Jubilee, I might celebrate my jubilee. We honour and bless her very much and love her, and if she could testify as I can—but her situation is such that one does not know how to ask such a thing. But happily I am placed in a situation humble enough to make it right for me to bear the testimony that I do to the well working of entire abstinence from all intoxicating liquors; and when I see such men as those by whom I am now surrounded—Dr. Norman Kerr, my old friend—(you see what an infirmity I have. I forget the name of a gentleman with whom I worked, and with whom I made speeches on total abstinence nearly fifty years ago)—Dr. Hannay—everybody knows Dr. Hannay's name. I know it very well, but unfortunately forgot it. This is the infirmity of a man of ninety, but I don't find that the advance of years makes me at all the more disposed to take anything like the wines or strong liquors that are taken by others—and they imagine that old age is an apology for it, and accounts for it, but I do not find that I need it in the least degree. Therefore I bear that testimony, and especially to the younger doctors that are here, and I am very, very glad, to see that there are such a number

of young men—young doctors here. I am very glad also to see that there are some ladies who will help us occasionally in this good cause, and I hope their number will increase. I believe that the number has very much increased from what it was in my day—from what it was when you last did us the honour to come to Leeds. The number has very much increased, and I could mention names, if they would not dislike it, of those who have been so steady in their attachment to this good cause. They have done a world of good. I believe women do more good than men by their advocacy of this good cause. I must not detain you further. I have borne my testimony. You will let it weigh with you as much as you think it right. Now, I will call on my old and dear friend Dr. Hannay.

Dr. HANNAY said it was a great pleasure to him, coming back to Leeds on a temperance occasion twenty years after he attended the first medical conference held there, as Mr. Rae had just mentioned, to find their old friend, Sir Edward Baines, still able to lift his voice in support of the contention to which the National Temperance League was committed, and which he, through so many active and useful years, had so brilliantly illustrated. Sir Edward Baines had spoken of him as if he were a contemporary of his. Well, as to years of life he could not pretend to any such honour, but as to years of personal conviction and personal work in the lines of total abstinence he was not sure whether Sir Edward or he was the older. He took the pledge on the 7th March, 1837, in a somewhat remarkable way—led by a crowd, and having no particular personal conviction about the matter except a strong and almost passionate determination that he would keep clear of the snares into which so many of his fellow-townsmen at Dumfries were constantly falling. He made up his mind as a boy that he would not be a drunkard, and he went before he was high enough almost to write his name in an old pledge-book kept on a bookseller's counter. Like Sir Edward Baines

he had tried the moderate method. He bound himself as a boy not to drink whisky—and only to drink malt liquors or wine. He remembered well that a commercial traveller from Liverpool named, he believed, John Finch, who visited Dumfries was in the habit, after he had visited his customers, of going round the town with a bell announcing a temperance lecture. He (the speaker) went with the crowd, heard, and then, although as a boy his signature was objected to, he took the pledge. If the book existed, there his name stood now. Most positively did he now declare his belief that his position in after life, and any service he might have been able to render either to the cause of temperance or to the cause of truth, was due to that one act. He did not regard that simply as an occasion for making speeches as from the National League platform. They were there, as he understood, rather to evoke testimony on the part of gentlemen of the medical profession who had honoured them by meeting them there that morning, than to offer argument or to attempt to appeal on behalf of their contention. The contention and method of the National Temperance League was too well known to require that time should be occupied in stating it. They proposed to meet the great evil of the day. All of them had too good reason to take note of the prevalent drunkenness in the country. The pledge he took was total abstinence from intoxicating liquors, except as medicine or in religious ordinances. He thought they were approaching the day when even those exceptions would be swept away. The National Temperance League regarded with sympathy and even active co-operation all the methods that had been devised by their friends for dealing with that evil, including appeals to the Legislature, the establishment of temperance hotels, temperance hospitals, and—he need not go over the category. But its own particular line of operation was the spread of information, the appeal to the individual for himself to abandon the use of intoxicating drinks. There never had been a serious



collision between different sections of the temperance movement, and it would be disastrous for any such collision to arise, but it was not improper that it should be stated that the true solid abiding basis of a national habit of sobriety must ever lie in the convictions of the people, counting one by one, as individuals; and the National Temperance League had practically confined itself to that line of operation while extending a sympathetic hand of help and co-operation to all other methods. One of the advantages that that movement had always had was the universal recognition of the evil with which they had to contend, though it had sometimes struck him that that had an accompanying disadvantage. The evil was at once admitted by those to whom they appealed, and as an immediate consequence the question of the evil was put aside, and it was not looked at in its multitudinous and horrible details. Now, he did not know that there was any class of her Majesty's subjects who were in a position so advantageous for knowing this evil in its details as the members of the medical profession. They who were on the streets, or gentlemen of his own profession, saw the more public and obtrusive manifestations of the evil. Medical gentlemen, more than others, were able to follow it into its secret hiding places, where even amid outward signs of comfort, culture, and refinement, the subtle ramifications of that evil were deadening all that was best in English family life, and all that was best in the public life of the land. They knew what was known to no others, perhaps, except themselves, and they were bound, honourably bound, to secrecy in regard to what he did not hesitate to call the most deadly and disastrous forms of this evil. Now, there had been this reason for the calling of that meeting if there had been no other—to recognise the great service which had been rendered to the temperance movement by the medical profession ever since the first declaration, which he remembered well, of 1839, and by successive manifestations issued after

that time, signed by leading members of their profession. Ever since then there had been, if he rightly judged, a growing sentiment among medical men in favour of—perhaps not all that they might regard as the extreme contention of the National Temperance League, but very far in the direction of that contention; and he was bound to say that so far as his personal observation went there was a much less liberal exhibition—he believed that was the professional word—of alcoholic specifics than there was in his boyhood. He could remember the time when there was—seen from his point of view—the most reckless administration of alcoholic medicines with the view of curing all manner of diseases. He was not quite sure that they had gone so far as one would like. He had found, during the previous week, in intercourse with some friends at Huddersfield—what he found again and again—gentlemen who years ago adopted the temperance pledge, and who after a time were persuaded by their medical men to abandon it. He could number up a long list of ministers of the Gospel who as students were total abstainers, and who were not abstainers now, and whose plea at the present moment was that they were persuaded by their medical men to abandon their abstinence and to begin the use of intoxicating drinks. He was not intending, he was not competent, to go into the question as to the extent to which alcoholic drinks might be used as medicines, but what he had said to these friends of his was this, “You have used these drinks under medical advice. Did these drinks answer the end for which you took them—did they cure your malady?” “Yes.” “Then why do you not abandon their use? In every other case of using medicine for the cure of a disease, if the disease was cured you would abandon the medicine, why not in this case?” “Did it cure your disease?” “No!” “Then why do you continue to take it? You don't do it with other medicines, why with this medicine?” And he had not found that his friends had generally been able to say anything in reply.

He wished that their friends of the medical profession in prescribing alcohol would prescribe it as they prescribe other medicines. He had not been so immaculate as his friend Sir Edward Baines in this matter. He was a minister in Dundee for some years and got into a somewhat low state of health, and the medical men regarded the thing as obstinate—what it was did not appear—and could do nothing for him. He went to Edinburgh and saw Professor Miller of fragrant memory in his (the speaker's) life. Professor Miller was not quite out of the wood at that time in the matter of recommending alcoholic stimulants in some cases, and he recommended him to take some claret. He asked him if he could not extract the property from the claret which was to have the effect on his system he hoped to bring about. He said, No, he did not believe it could be done; but he prescribed a certain quantity for three or six weeks, and then, cure or no cure, to be abandoned. Well, that he did under the strength of Professor Miller's prescription, and if all prescriptions were given with such care and conscientiousness, and specified quantity and limit of time, there might be less harm in it, and certainly excuse would be taken away from those friends who began to use intoxicating drinks, and went on using them, whatever the effect had been upon their system—good or bad. Now, in meeting them there that day, their anxious desire was that they should realise the responsibility which their special knowledge brought upon them to use the influence which they could use so well on behalf of that movement. He had been in the habit for many years of advocating total abstinence on the ground of Christian expediency. He had been met, as no doubt many of them had been met, by Christian men who had taken Scriptural ground in opposing them, and had even quoted the highest and most sacred authority in support of their view. This he had always, in his own simple way, as he thought it, met thus:—"You quote the Scriptures, you quote the Saviour's authority, I put to you this question—'Am I on principle, as a Christian

man, permitted to put all those intoxicating drinks aside, and refuse to use them? Is there anything in Scripture, anything in the Saviour's word or act, which would prevent me as a Christian man, desiring in all things to be subject to His authority, for ceasing to take these things altogether?'" He had never found the most obstinate moderate drinker, who founded his practice on Scripture, able to say he was not acting on Christian principle if he disused these articles. Then, he said, in the name of his Saviour, who came to redeem men from all sin, let them disuse them, and he found that wherever they were received—as beverages, or articles of diet—they brought about that monstrous phenomenon of social drunkenness. And he believed that men need only look at the matter in this broad way—not nibble at this text and that text, and counting texts against one another, and say they would disuse these articles, that they would be no parties to promoting the cause of intemperance in the land. But he had always felt that unless they could get at their back some hard facts of science in this matter; unless they could prove that those articles were not good either as food or beverages; unless they could prove not only on the testimony of scientific men, but by practice and experiment, that they were not good to be used as they had been used, they would not be able to hold their own—not even on the ground of Christian expediency. It would be enough for Sir Edward Baines, it might be enough for himself, for almost all who heard him, to take that ground, but as a general appeal to the people throughout the land, unless they had a basis of true knowledge, a basis of science, demonstration in fact that these articles were not good as beverages or articles of food, they would clearly be defeated. They would have to confess that the use of these articles was one of the dark and difficult problems of human existence which they were to overcome in the strength of character and manliness, and by the regulation as God might help them of their appetites and passions. And now he thought they owed much to the

medical profession and to gentlemen like their Chairman, who had taken that truth, as he deemed it, up and risked his life upon it. He had been carrying on that experiment all through life, and he had proved, as many of them had proved,—some with extremely delicately and ricketty constitutions—that it was not only possible to live and do hard work without these articles, but that it was much more possible without them, and they (the medical profession) could help them by bringing that matter to a fair issue in the open arena of English life. It lay with them to handle that matter as a question of science. Much had already been done. To him there was demonstration, but they had to appeal to the great English public, and if the medical men of England would unite themselves with the strong phalanx of Christian ministers and Christian citizens who were carrying that work on and working it out on their own line—they could afford to drop no line of argument—he seemed to see the day dawning—more than dawning—the sun rising up towards the meridian, when they should be not only a temperate people, but practically everywhere a people who totally abstained from those evil agents by which English life had been so much corrupted and the national name and honour compromised, and all true and good causes hindered. Now he felt he would be doing wrong to detain them longer. They had taken the responsibility of calling them there, and he very heartily welcomed them in the name of the National Temperance League, and hoped to find in many years yet to come a closely-united, strong body of medical practitioners, who were doing their best, by public advocacy and in the daily rounds of their profession, to promote that cause.

Dr. C. J. HARE, who was heartily received, said it was, he believed, just twenty years since they and he and many others met on the occasion of the first breakfast in connection with the temperance movement. Many changes—very many changes had taken place since then. He well remem-

bered, in his boyish days, what Leeds was then, and he had great pleasure in renewing acquaintance at their last meeting of the British Medical Association there, twenty years ago. But since then the town had greatly enlarged, great changes had taken place. Unfortunately other changes had taken place amongst those of his boyish days' friendships. Many had passed away, some of them who took a strong, warm interest in the movement with which they were associated on that occasion. Another change had taken place. Her Majesty had been pleased to signify her approval and approbation of the long life which their chairman had spent in the promotion of the welfare of his native town, in associating himself with all the good movements connected with that part of Yorkshire by placing him in that proud position in which he now was, and to which he was quite sure he was welcomed by the unanimous voice of everyone of his fellow-townsmen, whatever creed or whatever political opinions they might possess. These were amongst the changes that had taken place. But there was another change that had taken place since then which he was quite sure appealed to their feelings as much, and that with reference to the cause which they had so much at heart—the cause of temperance. In that day and now temperance held very different positions, and was then feebly spoken of by the profession to which they appealed on that occasion, but since then a very great movement had taken place, and a movement which had produced very material results. He well remembered how, at that time, alcohol-giving was in the very zenith of its power, and it was a strange thing for himself, as a physician to one of the London hospitals, to find a new case introduced into the hospital during his day's absence which had not already been placed by the house physician upon three or four ounces of brandy or twice that number of ounces of wine. He was one of those who, very many years before that, took a somewhat different view of the giving of alcohol. Now, he was not



about to appear there in any false colours. He had always the courage of his convictions, and he did not profess himself to be an absolute non-alcohol giver. On the contrary, he thought, he said, if he recollected rightly, when he spoke on the former occasion at Leeds, that he would not practise his profession if he might not use whatever means he deemed right and good and best for the benefit of his patients, and he did think, if he met a man sinking and falling in the middle of the street, and if he had no other medicine at hand, that he should be guilty of a dereliction of duty if he allowed that man to die because he would not give him an ounce of alcohol. But that was one side of the question. The other side was giving alcohol on all occasions, indiscriminately, without due consideration, as it had been given, he was sorry to say, by his profession. They had at that time a man of great talent, Dr. Todd, to whom, unfortunately, the profession for a considerable length of time bowed, and the statistics of alcohol-giving were very curious. Four or five years ago, when he (Dr. Hare) was president of the Metropolitan Counties branch of that large association—a branch which, he thought, numbered something like a thousand members—he used to give remedies out of fashion, and amongst the rest was temperance. He was occasionally favoured by the secretaries of various hospitals with statistics of the amount of wine and spirits which had been given in the clinical hospitals of London for fifty years before. Taking them in decades, 1831-41 to 1881, the alcohol given per head increased invariably in every hospital in London, till at last the amount used in 1871 was very large indeed in proportion to the number of patients admitted. At that time a movement took place, to which reference had been made, in which a protest was got up originally by that noble character, Dr. Parkes. He got up a protest against the giving of alcohol, and that was signed very extensively by the physicians and surgeons of the London hospitals, and its influence was such that, with one exception, there was

not one of the clinical hospitals in which the amount of alcohol given did not in 1881, compared with the preceding years, very materially diminish. There was an influence from that protest which had gone on producing its influence up to the present time, and now he knew that the amount of alcohol given, if he could get the statistics for 1891, would be very much less than the amount administered in 1881. And he was quite sure also that this had not been to the disadvantage of the patients, but in all probability very materially to their advantage—advantage, he said, in a physical point of view, from the physician's point of view, and very much to their advantage from a philanthropic and social point of view. He thought then they might look forward to the future with very great hope. He believed that the cause of temperance had taken a firm hold, not only in the public mind but in the mind of the profession, and he knew in talking to his colleagues he found that a very large number gave alcohol in a very moderate degree indeed, and many, as they were aware, in the temperance hospitals did not give it at all. He hoped that when, twenty years to come, the British Medical Association met in Leeds, even their Chairman might be amongst them, and that he would be able to congratulate them and his fellow-townsmen upon the further progress of the movement in which he had taken so noble and so warm an interest.

Dr. MURDOCH CAMERON (Glasgow) said he had been hearing how long it was since two or three of the speakers had their first temperance breakfast, twenty years ago. It was more than twice twenty years since he had his first temperance breakfast. He did not know how much there was in the milk that morning, but it appeared to agree with him, and he had not changed his diet since. He had always stuck to the milk. A good deal had been said about the patients; he would just like to say a word about the doctors. In Glasgow the Western Infirmary was conducted on temperance principles. Those of them who were in

Glasgow the previous year had an opportunity of seeing that fine institution, numbering several hundreds of beds, and he could tell them it as a matter of fact that on the diet list neither doctors nor nurses were allowed any alcoholic drinks whatever. Now they knew what hospital life was. They knew how hard-pressed house surgeons were, and they knew still more what a hard-wrought and what a self-denying life it was to be a hospital nurse, and yet those ladies were enabled to go through the routine of hospital nursing without a single drop of alcoholic liquor. And he thought this was a great advantage to their patients and those entrusted to their care. He had been frequently astonished, in conversation with medical men, when they had been telling some case and asking for a little advice. They said they gave some stimulant. He would ask them what they gave. They would say they were not sure whether wine or whisky—it was just a little stimulant. Then he would ask them how much they gave. "Oh," they would reply, "they did not know, but supposed the people would understand not to give too much." "And how often are they to give it?" he would then ask. "Oh," they would reply, "I did not go into particulars." And the fact of the matter was that man would go on making his visits and stop visiting, the patients would be able to do without his attendance, and he would never for a moment think of asking them to stop the medicine, and the patient never thought of going to the doctor to say "May I get another bottle?" If they were ordered a tonic they went and asked if they were to repeat the medicine, and grudged every time it had to be filled; but if drink was ordered they would go on for years, and for years after the doctor was dead they would keep on taking his medicine, they had so much faith in him. He had had a circular that morning from the Women's Christian Temperance Union, and he said God bless and speed them in their efforts. In the department with which he was connected—obstetrics and gynecology—he thought they saw

more of the evil of the administering of strong drink than any other section of the profession. In his own practice—he did not wish to boast as to his results—he had avoided much by not allowing in any case his patients to have intoxicating liquors, even as medicine. Whatever he might have done as a general practitioner, in that special branch to which he had devoted his special attention, he had set down his foot, and in no case did he allow the patient to have intoxicants. Those of them who attended the obstetric section would see he had read a paper on Cæsarian section, and had two successful cases—the only two successful cases that had occurred in Scotland—and in neither of these cases was a single drop of stimulant allowed. And he believed if he had allowed stimulant he would not be in the proud position he was in that day of enumerating his success. And as regarded the other department—gynecology—he thought there was more evil done in prescribing drink than in any other condition whatever. If they wanted to send a woman to the bad, they should allow her under such circumstances to take stimulants, and very soon they would find that their patient was suffering from a worse disease than she went to consult them about. Once a woman became afflicted with the terrible craving for drink, then she was beyond the help of any physician, and they had only to stand powerless and sympathise with her husband, who lamented day by day the terrible affliction that had fallen upon him. At the same time the husband did not blame them, but if he (the speaker) were in the position of having advised the use of stimulants, he should say he was the cause of all that misery. He thought they should take a most determined stand, and say that for them they would have nothing to do with the use of stimulants, that of two evils they would choose the least; and he thought if he were in the position that a physician was telling him he must choose between dying of a disease and running that risk, he would die rather than run the risk of life-long misery.

Dr. J. J. RIDGE said he would not detain them very long, but he felt he had a duty to perform in saying something that day, because he had the honour of occupying an official position, and as such he was bound to try to promote the interests of the Association of which he was secretary. Nearly fifteen years ago the British Medical Temperance Association was started with something like ten or twelve adherents at its first meeting. He saw one or two present that day, and ever since its start it had been growing year by year, consisting of practitioners who abstained totally from intoxicating liquors. It ought, perhaps, to be stated—though probably they knew—that they did not meddle with the right of practitioners to prescribe any kind of liquor which they thought fit to prescribe, although as occasion offered they endeavoured to point out the advantages of healing diseases without alcohol so far as some of them see their way to do so, and they also had occasion to illustrate the disadvantages of prescribing alcohol, such as they might have heard just now from Dr. Cameron and from others. But they took up this position, that it was the most important thing for the medical profession to set their faces against the common use of narcotics, against the common use of that prevalent narcotic alcohol, and they thought they had a foundation of reason and of science. They did not believe there would be found a single medical man who would advise his patients or advise people generally to make use of any form of medicine or any compound containing opium—who would readily recommend persons to be in the habit of taking any form of Perry Davis's Pain Killer, or Mother Seigel's Soothing Syrup, or any other of those quack remedies which contained some form of narcotic. They thought it would be an evil for the habit of taking such things to spread amongst the population. If that was the case, and people abstained totally from these narcotics, from laudanum, from opium smoking, and so on, and they thought it was best that it should be so, he had always failed to see

where it could be unreasonable for them to recommend total abstinence from alcohol, which did more harm than all the rest put together in this country. The very prevalence of intemperance, and not simply intemperance, but the evils which were far short of what was recognised as intemperance, had been produced by the fact that in these intoxicating liquors they had a substance, alcohol, which had that bad effect upon the human brain and interfered physically with the proper performance of the functions of the brain, and especially in the self-control of all those functions. Well, they hoped to see the people take a stand on that point. It was very nice to go to meetings and hear speeches sometimes, if they were worth listening to, and also to go away and do as they had done before; but they wanted something different, something more than that. They wanted men to cross the rubicon, and say that from henceforth they would not touch intoxicating liquors, and would recommend total abstinence as the most sensible course for a sensible people. He knew it required sometimes an effort—or a very great effort—especially if we had been in the past rather lukewarm on the subject, or perhaps had been speaking the other way. One need not be ashamed of getting wiser as one got older, but somehow or other one did not always like to confess that one had made a mistake; still they could not do otherwise than ask them—who had such an influence in their own neighbourhoods, and as members of a profession of influence throughout the country—to take a stand on the side of total abstinence, to say that while moderate drinking was advocated they would always get more or less drunkenness, while, on the contrary, when they totally abstained, they were perfectly safe and sure to be free from it. He had in his hand a copy of the declarations which were issued from time to time, the first in 1839, the second in 1847, the third in 1871. Copies of these declarations had been sent to a great number of the medical profession with the request that they would state whether



in their opinion they could endorse the truth of these declarations, and they had received something like between 600 and 700 replies. From various causes, which he need not enumerate, these names had not yet been published. They probably would be shortly, but there was still time for any who had not yet declared their approval of these declarations to do so now. He might say that in their Association they now numbered over 400 medical men, and over 100 medical students, and that, he thought, was sufficient to show that the temperance cause was advancing even amongst medical men. He was more and more convinced that it was the right and the proper course, the healthiest course, and that those who said they could not abstain were labouring under a delusion—a delusion which was the natural consequence of the use of alcoholic liquors which they consumed. It was one of the very results of taking any narcotic, that the persons who took it fancied they could not do without it, and that was the very proof of the injury which it was doing. They trusted that they would set their faces against the use of these things. He had been much encouraged since he came to Leeds by hearing that the cause was progressing and that they were looked upon more favourably than they had ever, he thought, been looked upon before, and such being the case, it had become increasingly easy for medical men to be total abstainers. Every person who joined their Association increased the ease for others to follow, and by so doing therefore they were capable of doing more good than, perhaps, they imagined. They did earnestly ask them for their own sake, for the sake of the country, for the sake of their fellow medical men, to join the Medical Temperance Association.

Dr. NORMAN KERR said he had very great pleasure, in a very few moments, of just adding to the testimony that had already been given. He should avoid entirely the question of the medical prescription of alcohol, which had already been dealt with, and would reserve the few moments left to the

consideration of the general broad principle of the social habit of drinking intoxicating liquors. Looking at the question broadly, what had they there that morning? They had an object-lesson, they had the best of practical demonstrations—the grand object-lesson of Leeds, Sir Edward Baines, in his ninetieth year, presiding at that early hour of the morning. And they had a specimen of the philosophy of what was best in temperance in the person of him who, for nearly the whole of the century, in that very city, had worked his own way, and had made a great temperance reformation in that country—he meant his old friend, Dr. F. R. Lees, of Leeds. If they were to make any advance whatever, any real and permanent advance in the temperance cause, it must be on the lines laid down by Dr. Lees. If their advocacy of temperance, and by that he meant abstinence, was not founded on scientific truth, no matter whether it was propounded by Sir Edward Baines or the President of the British Medical Association, that advocacy could only last for a very short time. The truth could not be overwhelmed by all the forces of earth. Nothing could prevail, or should prevail, that was not founded upon truth. Therefore for his part he challenged investigation by every person, prejudiced or unprejudiced, as to the truth of the foundation of the temperance reformation. If the social use of intoxicating liquors was a matter of indifference, then the foundation was cut from their advocacy altogether. But it was not a matter of indifference. There was something in the nature of alcohol that was different from articles that were non-alcoholic. The use of intoxicating liquors, he contended, did an appreciable injury to the bodily constitution as well as to the brain. Alluding to the habit of taking these liquors at public dinners—and he was not referring to the dinner in connection with the Medical Association, for he was not there—he said that he found—he had found, at all events, on some occasions when he was the only abstainer present—that by the time dinner was over they were getting a

little foolish in making confidants of men they would never think of confiding in if they were perfectly sober. They were not in the least degree drunk, but still they were unwise. Why did he after dinner notice that? Because if he had been taking wine like the others he would not have noticed it, but would have been as foolish as the rest. Of course, it was merely a little temporary exhilaration, but it was the first stage of the poisoning process which resulted from taking alcohol; it was not the second stage, or the third stage, or the last stage; but it was the same thing in kind, and different only in degree from the almost paralysed drunken unconsciousness of the man lying in a state of dead drunkenness in the street. Then let sensible men consider — there was the last stage — there was the first moderation stage of drunkenness — whether they would set out on the journey, and whether, if they were compelled to run this risk, they would undertake the risk at all. He argued that this great country of Great Britain and Ireland, which had done so much for the progress of humanity, as well as material prosperity, could have done an enormous additional amount of good had the brains of this country, the brains of its people, been entirely free for the last 150 years from that first stage — free from alcohol. He just wished to make one remark on a very prevalent error even amongst temperance reformers, that, while ardent spirits were very dangerous and bad things, wine and beer were very innocent — and many people regarded these as temperance drinks. He quoted an instance where a large percentage of the drunkenness in a certain neighbourhood was caused, not by spirits at all, but by the drinking of English wine and English beer. The fact of the matter was that the whole drinking system was bound up with a certain amount of risk, and in the interests of humanity and for the protection of themselves they were bound to bring up their children and continue themselves in abstinence from all substances which would

impair the intelligence, dim the intellect, and paralyse the moral conscience. He had to propose a hearty vote of thanks to Sir Edward Baines, to Dr. Hannay, and to the National Temperance League, for inviting them there that day, and to Sir Edward Baines for presiding.

Dr. F. R. LEES seconded the motion. He said it was not necessary he should detain them with any remarks, but he would give them one illustration which in reading the curious life of a great Italian artist, who lived 300 years ago, had come under his notice. He referred to Benvenuto Cellini, who related of himself, "I went on treating myself according to their (the doctors') methods, but derived no benefit. At last I resolved on the guaiacum wood (*ligna vite*) against the advice of the best physicians in Rome, and I took it with the most scrupulous discipline and rules of abstinence, and after a few days I perceived in me a great amendment. At the end of fifty days I was cured." He got cold in hunting and had fever. The doctors warned him against the wood as before. "However," says he, "I made up my mind to disobey their orders, observed the same diet as before, and after drinking the decoction for four days was wholly rid of fever, my health improved vastly. During the time of that strict abstinence, I produced finer things, and of more exquisite invention, than at any other period of my life."

Sir EDWARD BAINES, in replying, said that many of the facts that had been stated were worth treasuring, and if they were treasured and acted upon they would no doubt be productive of great benefit; and he rejoiced very much to see so many interesting themselves in the temperance question and in the welfare of the country. He hoped that when they next met—he could not say when "*we* shall next meet"—in Leeds as a medical association and as friends of abstinence, they would be able to give a better account of progress in the cause of truth and righteousness and goodness in the land.

This concluded the proceedings.

## THE HEREDITARY FACTOR IN ALCOHOLISM.

To the thoughtful medical man, who is at the same time engaged in philanthropic work, it must often be a source of discouragement when he reflects that few, if any, of our schemes for ameliorating the condition of our fellow-men do more than touch the surface of the evils attacked, leaving their obscure and deep-seated causes to go on producing a like train of ills entirely uninfluenced by our efforts. Some one asked Dr. Oliver Wendell Holmes if it were not the fact that every disease could be cured if the doctor were called early enough? "Yes," he replied, "but early enough would commonly be two hundred years in advance." That Moorish doctor spoke like a philosopher when he prayed: "Oh God, be kind to the wicked! Thou hast been sufficiently kind to the good in making them good." We must all have sometimes wished that the human race could be propagated with as much care as breeders bestow upon horses and cattle; and no thinking man of our profession can contemplate without pain the marriages of consumptives, syphilitics, neurotics, or drunkards. Especially terrible, appears from recent researches, is the part played by alcoholism in heredity.

The *Progrès Médical* has done the medical profession at large good service by publishing M. Paul Sollier's Aubanel Prize Essay on the "Rôle of Heredity in Alcoholism." A more suggestive study for the physician, and a more saddening one for the philanthropist, it would be difficult to imagine. Here is original sin in terms of modern science, and the punishment threatened in the decalogue to the "third and fourth generation" is exhibited at work in perhaps its most terrible form. By abundant and well-arranged statistics M. Sollier traces the afflictions of the idiot, the epileptic, the imbecile, the hydrocephalic, the choreic, and the mentally debilitated, up to the alcoholic father, mother, or grandparent, in so many and such clearly marked instances

that it is quite impossible to deny his conclusions from the data he gives. "Conception in a state of drunkenness of the father or the mother devotes the individual conceived to a condition so profound (idiocy, complicated frequently by epilepsy, hydrocephaly, microcephaly, &c.), so that it is condemned in general to a very short existence." An alcoholic subject runs a terrible risk of conferring upon his descendants either insanity or tendency to vice, or suicide, or hysteria, the milder nervous disorders. The legacy of evil may miss a generation, and then appear in the next, like gout. It will generally manifest itself, if it appear in the form of dipsomania, in a taste for the same liquor as that preferred by the ancestor, and in its mildest form it will tend so to predispose the unhappy descendant to the evil of ebriety that he will find the freedom of his will in that direction seriously imperilled. The menopause more even than pregnancy seems with women a determining cause of alcoholism. Or its terrible influence may first be manifested after some nervous shock, in sickness, or with advancing age. Hereditary alcoholism has a certain likeness to dipsomania, and it is a fair ground for question whether such a proved condition does not constitute irresponsibility.

Dr Bourneville, to whom the work is dedicated, has written a very interesting preface, in which he asks, in view of the sad revelations of the statistics, What is to be done to remedy the evil? He suggests the establishment of special asylums for the treatment of inebriates, much greater supervision of the drink trade, and increased penalties for adulteration; but above all, the making known to the public by every possible means the awful consequences which our drinking customs entail, not only on the drinkers themselves, but upon their descendants. It seems to us that medical men taking up the question on the lines of M. Sollier, and teaching it medically from the same point



of view, without complicating the question with the often exaggerated arguments of our teetotal friends, might do much to enlighten public opinion on a matter surely second to none in importance for body or soul. How much the moral character of the drunkard becomes degenerated we are constantly compelled to observe; perhaps the mildest form in which he transmits the consequences of his vice to his offspring is in the form of a dulled moral sentiment, a hazy mental outlook which, while not always developing to actual turpitude, yet makes the higher forms of manly and womanly nobleness difficult, if not impossible of attainment—*British Medical Journal*.

The preceding article was suggested by a pamphlet published at the offices of the *Progrès Médical*—M. Paul Sollier's Aubanel Prize Essay. This pamphlet, which is dedicated to, and has a preface written by, Dr. Bourneville, Physician to the Bicêtre Hospital, is so important that we translate and quote from it as follows:—

#### THE ROLE OF HEREDITY IN ALCOHOLISM.

Thus put, the question comprises three terms: 1. Can alcoholism be hereditary? 2. If it be hereditary (similar heredity) in what measure and in what way does the heredity act? 3. Is similar heredity the only one which intervenes in the genesis of alcoholism, or may there, on the contrary, be dissimilar heredity; and in this case what are the affections to which the descendants of alcoholism are most predisposed? Can alcoholism be hereditary? The title itself of the subject would almost permit of the question being resolved affirmatively, and to leave that for examining the other questions which spring therefrom. We could do so the more as the answer to this first question disengages itself quite naturally from the remainder of our work. Still we prefer to establish in the first place on what base we rely for admitting once for all the heredity of alcoholism.

#### HISTORY.

All the ancient authors, doctors, or philosophers, who have had occasion to speak of the *penchant* for drink have noted its frequent transmissibility from parents to children. But they did not attach great importance thereto, and their remark had only an interest of curiosity. They only saw in it the transmission of a similar taste from one generation to the following. They did not foresee the different factors which favour in its descent the increase of this taste. Especially, they did not see the difference there was between vice and disease. To them the drunkard was a vicious fellow, not a diseased one. And, besides, how would they have been able to make this difference? Alcoholism did not exist then, or, to put it better, they did not know it, and if they discerned the effects of drunkenness on the individual, they ignored almost completely its influence on the species, and consequently the intimate origin. We must come to the works of Magnus Huss to find alcoholism become a morbid entity and take its place in the nosological list. But before coming to this period let us look back and see how the doctors at the beginning of the century judged the question of heredity of taste for drink. Without wishing to make here a detailed history of the question of heredity of alcoholism, we shall seek especially to see through what phases it has passed in order to arrive at its present stage. It is only in passing, in studying the particular points which this complex question includes, that we shall examine the opinions and works of authors who have more especially written on this subject. Gall admits the transmissibility of the *penchant* for drink, and mentions a Russian family in which the father and grandfather died prematurely victims to their passion for strong liquors. The grandson from the age of five manifested the most pronounced taste for the same liquors. Girou de Buzareingue, in his book on generation (page 277), says that he knew a family in which this unfortunate taste was transmitted by the mothers. Esquirol the first thinks that drunkenness is

sometimes the result of unhealthy training, and remarks that drunkards are often predisposed to nervous affections. Is there not in this in germ the idea of mental degeneration involving alcoholism? Louis, in his dissertation on hereditary diseases (page 41), refuses to admit this species of heredity, and, by a singular contradiction, he cites two cases in which the heredity of alcoholism is manifest. The first is that of the family of Voiture, whose father and one of whose brothers was passionately fond of good living and wine, contrary to Voiture, who only drank water. The second case is that of a family whom Louis knew personally, and in which the father and some of the children inherited the gout with drunkenness from their father. This is a very interesting observation if one thinks that gout belongs to the arthritic family and has very close affinity with the neuropathic family. Prosper Lucas, in "*Herédité Naturelle*," is of an opposite opinion to Louis, and completely admits that drunkenness may be transmitted hereditarily. The works of Bruhl, Cramer, and Carpenter, do not throw much light on the subject before us. It is Magnus Huss's work which definitely created the term *alcoholism* at the same time that he made known the physical and psychical disorders which the abuse of alcohol produced. Thenceforth alcoholism appeared in its true character, as a morbid entity, with well-defined symptoms. But up till then, there was only kept in view the influence of alcoholism on the individual taken separately. Morel, with his grand idea of degeneration, took up this study and had no trouble in showing that alcoholism was one of the gravest and most rapid causes of the degeneration of descendants, either physical or mental. At the same time, it was remarked that many alcoholics were degenerate, mad, or epileptic. Thus it was necessary to go beyond the individual and seek in preceding generations the cause of this degeneration, immediate cause of alcoholism. Alcoholism then became the manifest result of the

degeneration of the individual, and this degeneration was itself the consequence of heredity at least in the majority of cases. But as among the hereditary antecedents, among the blemishes of the ascendants one often found only alcoholism, one has been naturally led to think that alcoholism could be transmitted by similar heredity. In the first case, heredity creates among the descendants a feeble ground, incapable of resisting, and which consequently is favourable from all points of view to the breeding of alcoholism. In the second case, it is alcoholism itself which creates at the first onset the predisposition to alcoholism in the descent in the same way as dipsomania, kleptomania, and neuropathic affections, may be transmitted hereditarily. Since, all writers have recognised this double influence in the genesis of alcoholism; on the one hand similar heredity, on the other dissimilar heredity. But the latter has been little studied. In effect, most authors have examined especially the lineage of alcoholics. Now in this we find on the one side alcoholics—that is to say, from alcoholism by similar heredity, and on the other all the rapid physical, intellectual, or moral degeneration, which afflicts the descendants of alcoholism. The study of lineage, pushed far enough, shows us, then, similar heredity, but it does not show us dissimilar heredity. In order to see its influence one must search the ancestry of alcoholics. It is by analysing this that we may find out whether alcoholics alone can produce alcoholics, or whether, on the contrary, the neuropathic diathesis in general is not susceptible of engendering it. This said in passing, we now arrive at the opinions of contemporary or modern authors, to whom applies the remark we have made on the question of the heredity of alcoholism. Thomeuf (thesis 1859), Contesse (thesis 1882), and Marcé perfectly admit this heredity, but without insisting on it. Lasègue establishes it clearly, and gives in the development of alcoholism the greater part to the individual subject. Lancereaux and Fournier think that in

certain cases the tendency to alcoholic excesses is the result of unhealthy innate dispositions, and that drunkenness is certainly occasionally the fact of a transmission. M. Lancereaux distinguishes two forms of alcoholism: acquired alcoholism and hereditary alcoholism. But under the name of hereditary alcoholism he designates all the accidents which may arise among the descendants of alcoholics from the single fact of the alcoholism of the parents. We think that, taken in this general sense, this term can only establish a regrettable confusion. If it be preserved, this would be, it seems to us, to designate solely the alcoholism which results from hereditary antecedents, either similar or dissimilar, of the individual. Thus, in the hereditary alcoholism of M. Lancereaux we find everything—epilepsy, mental debility, idiocy, perversion of instincts, &c.—everything except perhaps alcoholism, which only figures for a small part in the heritage of alcoholics. If, then, these different states were specifics of alcoholism like the varied accidents of hereditary syphilis, there would be no great evil. But there is nothing of this. Thus do we claim the name of hereditary alcoholism for the alcoholism which has its source in the pathological state of the ascendants. Or, rather, we would propose to suppress it purely and simply, for that would only seem to create still more confusion. Let it suffice us to have indicated in what sense we understand it. The important point does not lie in the words, but in the facts, and how much clearer science would often be if it were lightened of a crowd of synonyms which every one pretends to interpret in his own way, and which most often serve to lead to obscurity so near to error. Mr. Ball, in his article on *Delirium Tremens*, also gives a large part to hereditary predisposition in the development of alcoholism in the first place, and afterwards delirium. M. Déjerine, in his thesis on heredity in diseases of the nervous system, after having remarked on the analogy which exists between the different deliriums due to intoxication by alcohol, chloral, or mor-

phine, adds: "If there be analogy of manifestations, it is quite rational to conclude that there is analogy of subject, and that our alcoholics are so, thanks especially to their delicate, excitable personal temperament. Heredity in sum is still there." Moreau, of Tours, has well set forth the fact when he proved that haschich only acts on subjects eminently predisposed. Taguet ("*Heredity in Alcoholism*") admits in alcoholism, as in all the affections which are transmitted to the ascendants, an heredity of similitude, and an heredity by metamorphosis, and insists especially on the unhealthy manifestations produced by alcoholism of the parents in the children. Despite the title of his work, he examines—for which we reproach the majority of authors mentioned above—alcoholism in its whole, that is to say, at one and the same time, in its ascendancy and especially in its descendancy, more interesting, perhaps, from a social point. We have been more than once deceived in this way in verifying the complete absence of information as to the hereditary antecedents of alcoholics in a number of theses or papers where one had the right to expect to find them. M. Féré ("*Les Alcoolisables*") shows by two very clear examples the inference of heredity in the predisposition to alcoholisation. Here intervenes new data previously noticed: it is no longer alone the tendency to alcoholism, it is the susceptibility to intoxication which is meant. Lasègne has particularly insisted on the different degrees of aptitude to intoxication presented by the different individuals, and he has remarked, if there are some powerless to alcohol, there are others on the contrary who suffer from the influence with an extreme sensibility and rapidity. These are the *alcoholisables*. Mr. Ball and the majority of authors think also that the son of an alcoholic or a madman is infinitely more sensible to the physiological effects of spirituous drink than any other individual. We have found some very interesting data on the question which is before us in two recent theses: that of M. Grenier and that of M. Legrain. M. Grenier, study-



ing the degeneracy of alcoholics (thesis 1887), shows by numerous observations that those of weak mind are very much inclined to excesses of drink, and how, hereditary alcoholics, they become themselves alcoholics by the same processes as their ancestors. We see alcoholics not only beget weaklings, but also alcoholics. Drinkers beget drinkers, and that in a notable proportion: about half the cases. M. Legrain (thesis 1886), summarising the opinions of M. Magnan and his school, thus expresses himself: If there are in effect two propositions which one has the right to express to-day, they are the following—cerebral inferiority, direct cause of excess of drink, finds its origin most often in heredity, in other terms drinkers are degenerates; and this other alcoholism is one of the most powerful causes of mental degeneration, in other terms the sons of alcoholics are degenerates. The connection which exists between alcoholism and mental degeneration resolves itself then into this terribly vicious circle which to-day finds its confirmation in an infinity of medical observations which are most eloquent. And further: There are few observations of degenerates in which one does not find noted somewhere the excess of drink; inversely, it is notorious, at least so far as regards downright alcoholics, that their descendants number idiots, imbeciles, debilitates, and neuropaths, of whom the most common are epileptics. Opinion, then, appears to us to be fixed in France on the question of heredity of alcoholism and answered by all affirmatively, if not for every case of alcoholism, at least for a large number, perhaps the greater number. But what is thought abroad? The Belgian Academy of Medicine has twice had a competition on "the effects of drunkenness on degeneracy." If it be permissible to consider the reports made in these competitions as the expression of current general opinion, we may say, there also heredity is regarded as one of the most powerful causes of alcoholism, and that similar heredity and the heredity of transformation are also

admitted. "Heredity in drunkenness," says one of the reports, "is subject to the laws of psycho and neuropathic transmission." Such is also the opinion in Germany. But it is especially in England and America that alcoholism is regarded as an hereditary disease. In America it is specially Crothers who has made himself the defender of these ideas, sufficiently adopted, moreover, in order to lead in 1871 to a sort of congress of the various temperance societies which exist in that country, at which the following resolutions were passed: 1. Alcoholism is a disease; 2. It has as its prime cause a constitutional susceptibility in regard to alcoholic drink; 3. This constitutional tendency may be hereditary or acquired. Crothers, well placed for studying all questions relating to alcoholism since he is at the head of a drunkards' hospital, thinks there is no disease more intimately connected with the physical and mental conditions of the race. Drunkenness, he says, is positively transmitted from one generation to the following one, and this diathesis or predisposition may be met with in two or three generations. He goes also so far as to consider drunkenness as epidemic, similar in that to certain neuroses, and obeying a great psychological law as yet unknown, drunkenness appearing at certain times with great intensity, at others dying out and returning at the end of a certain period. Thus everywhere public opinion is the same; alcoholism may be hereditary. This is only a question of more or less. But this idea is of more or less recent date, and if we look at the places through which we have passed to arrive there, we shall find three great ones. In the first place, and it is the longest period, alcoholism, in the acceptance in which we understand it to-day, is not known. What is known is drunkenness. Its transmission from generation to generation is well marked, but only an affair of resemblance is seen therein, which is nothing astonishing, between the character of parents and children. The second period is a period of transition. It corresponds

to the great movement which arose in the study of mental alienation in France at the beginning of this century. The frequent connection which exists between madness, weakness of mind and drunkenness, was perceived. It was proved that frequently alcoholism only preceded madness. The *penchant* for drink came to be no longer considered as a vice, but as often allied to an unhealthy disposition. But a stop was made there. One did not dare to say it was a disease, and still less a disease which was often hereditary. Lastly, the third period commences with Magnus Huss and Morel, who sprang into notice almost at the same time by a coincidence which presents itself often enough in the history of the evolution of ideas. The works of the first furnish the second the base in some way of his study, so elevated and exact, of degeneration in the human species; for the part which he gives to alcoholism in his book is known. Since, this movement commenced by Morel has done nothing but grow.

#### SIMILAR HEREDITY.

In the historic birdseye view above we have seen that it is of similar heredity that most of the authors have spoken in describing the heredity of alcoholism itself, which could be transmitted under the same form, did not have its origin in something higher, and if, instead of being spontaneous as it appeared in certain cases, it was not necessary to see in it the result of an hereditary predisposing influence, sometimes different. It is thus that from the notion of similar heredity we have passed to that of dissimilar heredity, less common however, which explains in part how it has attracted so little attention. Doubtless it is not without interest to know the principal opinions of authors on this particular point of heredity of alcoholism, opinions on which we have not wished to insist in our general historic sketch. We shall pass in review those who have a special opinion either for or against similar heredity. Davis, for example,

says (*Chicago Journal of Nervous and Mental Diseases*): "Statistics, it is true, show that children born of alcoholised parents have a special tendency to the abuse of strong drink. But before considering this tendency as hereditary it is necessary to know: 1. Whether the mother during the time she suckled her child did not make a more or less habitual use of alcoholic drinks which, passing into her milk, would have been able to leave an impression on the child and give it the taste; 2. Whether parents addicted to an excess of drink did not often give their children alcoholic drink in the hope of curing their indispositions—an object which they themselves in similar cases seek to attain by the same means." The very extended experience of the author permits him to affirm that nineteen times out of twenty alcoholism, called hereditary, was simply acquired in one of the ways he had indicated. He nevertheless recognised that the state of alcoholism of one of the ancestors might render the descendants more nervous and impressionable to the action of alcohol. Doubtless that is a most exaggerated assertion, and which would not be upheld. In the first place, it would be necessary that the mother should be an alcoholic even momentarily. Now, the contrary is most often the case, and alcoholism comes from the father. It is not, then, in the milk of the mother that the child gets the taste for alcohol. As to the fact that parents addicted to alcohol cause their children to acquire a taste for alcohol by giving them alcohol for one object or another, it is undeniable. But how is it that, in countries where the habit of giving children eau-de-vie to help dentition and strengthen them, or for other causes, it is precisely the children of alcoholics who contract this habit with most facility? Is it not more rational to admit that opportunity has only developed in a precocious manner a latent disposition due to heredity? Moreover, the theory involved by Davis would be at the most applicable in only an infinite minority of cases. Thomson de Kappeln (*Archiv fur Psy-*

chiatric), in a work on alcoholism and its transmission by heredity, gives some interesting facts. As in so many other maladies transmissible by heredity, the hereditary predisposition in alcoholism often only passes into a state of disease at an advanced age. Sometimes those predestined have no taste, and have even an aversion, for alcoholic drinks. Ordinarily robust and intelligent, it is with age, to renew their powers, that they become alcoholics. It is a sort of latent heredity, which is clearly pointed out by Taguet (of "Heredity and Alcoholism") when he says:—"The heredity of similitude presents itself under two aspects—in the latent or slumber state, when it demands for its production example or imitation, or else it breaks out suddenly and quite unexpectedly without its being possible to seize any relation of cause to effect. Some people come into the world drunkards as others do criminals." According to Thompson, again, alcoholism presents also this trait common to heredity affections, namely, that they are not transmitted only from father to son: heredity is not solely direct, it may spare one generation and attack the following ones. This fact, which he indicates simply as possible, the author of one of the memoirs on the heredity of alcoholism to the Belgian Academy of Medicine gives as constant. "The author," says the report, "has been able to verify in alcoholic heredity the remarkable fact as to the immunity of the direct descendants and the revelation of alcoholic manifestations in the second generation." It is not so frequent, as we know, to see scrofula and rheumatism skip a generation and attack the second, and as to alcoholism we do not fear to affirm from now that the opinion of the author is at least much exaggerated, if not quite erroneous, as we shall examine afterwards. The same author distinguishes three varieties in similar homotype heredity: 1. A variety which he says is not discussible; this is the transmission of a defect or vice of the parents to the children; 2. A second variety consists in the transmission of the symptoms

of chronic alcoholism to a lineage which has never abused drink; 3. A third manifestation of heredity alcoholism is impulsive madness. Strange precocities are observed, perversions of the moral sense of the instinctive monomania. This division is not exempt from criticism. If the remark of Crothers: "Drunkenness is a vice or a disease, it cannot be both," be true, the first variety of the author is nothing less than discussible. As to the second variety, it is, if we are not mistaken, with the hereditary alcoholism of Lancereaux, as M. Gendron has described it in his thesis, that we have to deal. We have seen above that it was necessary to think of this deceiving denomination of hereditary alcoholism, and what it covers. The accidents described in this form should be placed alongside those which form part of the hereditary baggage of the sons of drunkards—namely, idiocy, epilepsy, mental debility, &c. In a word, this second variety described by the author concerns only the lineage and not the ancestors of hereditary alcoholics. It should not, therefore, find a place here. His third variety may be retained. It sets forth, in effect, cases where hereditary influence is not doubtful—namely, the precocity, sometimes astonishing, of taste for strong liquors presented by some descendants of alcoholics. Crothers (*Medical Record*) professes on the subject of latent heredity in alcoholism an opinion which agrees with those of Thompson and Taguet quoted above. In many cases, he says, alcoholism has a preliminary period more or less long before the usage of certain alcohols develops itself, and in some cases before the appearance of the first alcoholic accident. Alcoholism appears then under the influence either of the wear and tear of age, of a nervous shock, or of a disease. A commencement is made by drinking to assuage pain, then more is taken, and then it cannot be dispensed with. In this case the subject was a drunkard in the latent state. Is not this drunkenness in the latent state, which thus develops under the influence of a habit which has become an irresis-

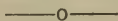


tible need, what the English designate as dipsomania, and what Mr. Ball distinguishes as an acquired form of dipsomania? Of all the opinions we will not and must not retain only the fact superabundantly proved of the real existence of similar heredity in alcoholism. Little does it matter to us how it has been desired to explain it, and what influences have been invoked for its development. It is our business to study precisely in what conditions heredity shows itself in alcohol, and what place it occupies in its genesis. But before entering upon this study it seems important to us to establish the proportion of hereditary alcoholics to those who are not so, or, to state it better, to those who do not appear such. As far as concerns hereditary alcoholics, we will divide them into two categories, answering to the two forms of similar and dissimilar heredity. We have found in the authors no precise indication in this respect, as well for heredity in general as for the two varieties which it includes. M. Grenier is alone, to our knowledge, in touching upon it in a few words when he says: "The hereditaries of alcoholics themselves become alcoholics in notable proportions, about half the cases." Lancereaux says also that nothing is more common than to see the sons of drunkards deliver themselves at an early age to an excess of drink. But hitherto, we believe, no statistics have been established on a solid base, and we are limited to approximations which are doubtless nearly true, since the majority of authors seems to agree, but which would certainly gain by being replaced by the brutality of figures. It is a hiatus we have endeavoured to fill, and here are the results at which we have arrived. We have sought the origin of alcoholism in 350 families, of which one or several members were attacked. Out of these 350 families, we have been unable to find any avowed hereditary antecedent capable of explaining alcoholism, and we have, therefore, been forced to admit its non-heredity in 209 cases, or 59·71 per cent. In 141 cases, on the contrary, alcohol was united to

conditions of heredity. Similar heredity was observed 106 times, dissimilar heredity 35. If we analyse these cases of similar heredity we find: Transmission between two generations, 93 times; between twice, 10; between four, 3. In certain cases we have observed that alcoholism, after being transmitted directly between two generations in one branch of the family, was transmitted indirectly, in skipping from the first to the third generation to a member of another branch of the same family. In one case alcoholism, after being transmitted directly between the two first generations was transmitted collaterally for the third and fourth, between which it was again transmitted directly. These leaps in the march of the heredity of alcoholism are very rare, and in the immense majority of cases alcoholism is transmitted direct from one generation to the following one. In short, alcoholism is hereditary in 40·29 per cent. only of the cases, and is not so in 59·71 per cent. We cannot be satisfied with these figures, for they are tarnished by errors, and certainly on this side of the truth. This is why: Those who were affected in the families in which we have sought and met alcoholism, and in which we have endeavoured to discern the causes, were all inferior degenerates: idiots, epileptic, &c. It is very certain that in a large number of our observations in which we have encountered any cause of alcoholism, the avowed antecedents have been very attenuated, either voluntarily, involuntarily, or by ignorance. We cannot invoke a greater or less susceptibility to physical and psychological decay; it is precisely heredity which creates it. When therefore we see a very profound degeneration the consequence of an inconsiderable heredity we are nearly right in thinking that we are not completely taught, there are things which escape us. It is very evident that we only speak here for the majority of the facts, because we believe that under the influence of a particular circumstance alcoholism may assume a character of such gravity from the hereditary point of view, that it almost

fatally entails a complete decay of the race. Let us mention first conception during drunkenness, then the cerebral traumatism and all the conditions capable of making alcoholics from acquired cerebrals, with whom nervous disorders which intervene suddenly add by their intensity to the slow and progressive action of heredity. Moreover, a negative fact always lends itself to disputation and proves nothing. Our statistics show us the minimum per cent. of hereditary alcoholism. There is here a positive fact, which does not admit of discussion. That which is no less evident to us is that the figures are much below the truth. Such as they are, however, they supply us with a sufficiently firm basis for affirming that in nearly half the cases alcoholism is hereditary, and that not only is it subject to heredity in general, but especially to heredity of similitude, which presents itself in 75·70 per cent. of the cases against 24·30 per cent. in which dissimilar heredity is met. This datum once established, our statistics enable us to establish a second in order to answer the question which naturally arises: In how many consecutive degrees can similar heredity in alcoholism be observed? According to Darwin, alcoholism is transmissible up to the third generation, and drunkards' families become extinct in the fourth after having descended the scale of physical and intellectual degradation. This is also the opinion of Morel as to the course which the most habitual of the successive transformations which

the families of drunkards undergo — First generation: Alcoholic excesses, depravity, moral brutalisation. Second generation: Drunkenness, maniacal fits, general paralysis. Third generation: Hypochondriac tendencies, melancholy, suicidal and homicidal ideas. Fourth generation: Intelligence badly developed, stupidity, idiocy, and probable definite extinction of the race. According to this table one might think that it only admits similar heredity in two degrees. But if, following it, it is the general fact, it none the less quotes several others in which the tendency to drink has made itself manifest during three generations. Here is, in effect, what we may deduce from our statistics. In the greater number of cases the transmission of alcoholism is made between two successive generations. Out of our 106 cases of hereditary alcoholism, we have in reality found transmission ninety-three times to the second degree. Transmission to the third degree, inasmuch as less often observed, ten times. Lastly, transmission to the fourth degree was only met three times, but it exists in a certain way, and that suffices for stating that the descendants of alcoholics do not always become extinct in the fourth generation. Maybe there are transmissions to the fifth degree which we ignore on account of the difficulty met in procuring exact information as to such a large number of generations. It is only in historic families that such examples could be met with.



## ALCOHOLISM AND PULMONARY CONSUMPTION.

By THOMAS J. MAYS, M.D., *Professor of Diseases of the Chest in the Philadelphia Polyclinic, and College for Graduates in Medicine.*

ANY one who studiously watches the evolution and dissolution of families, some of whose members are addicted to alcoholic excess, must be struck with the frequent occurrence of pulmonary phthisis among them. So, on the other hand, it is no less astonish-

ing to find the latter disease suddenly appearing in families who are absolutely free from a phthisical history, and who seemingly live amidst the most healthful surroundings. Why these two conditions should be so closely associated, if in consonance

with the current belief, the one is a nervous, and the other a strictly pulmonary disease, is not very clear. The following pages shall be devoted to an elucidation of this intricate problem, in which I shall endeavour to show that these two apparently isolated phenomena are naturally interchangeable with each other, and that like two diversified islands cropping out above the surface of the ocean without exposing their connection beneath, they find their common bond of union in a disordered state of the nervous system.

In order to make this subject as practical and as intelligible as possible, I shall at the very outset endeavour to prove the intimate association between alcoholism and phthisis, how one link may change place with the other in the chain of vital persistence, by citing a number of living, illustrative examples. The first ten of these cases have been culled from the extensive experience of the editor of this Journal, and have been placed at my disposal through his kindness; while the remainder have been obtained from various other sources.

CASE I.—J. B —, aged forty-two years, began the excessive use of spirits after the death of his wife. He was a merchant, temperate, prosperous, and a man of character. He became a steady drinker, and was practically intoxicated all the time. After an attack of delirium tremens he was placed under my care. During the four months while under treatment, he was alternately depressed and elated. He complained of wandering pains, and changeable appetite, as well as of spasmodic periods of coughing. A few months after he left me, he relapsed and continued to drink until he died a year later.

His mother and two sisters died of consumption. His father died from injury, but his grandfather was asthmatic, and used spirits to excess for years. One uncle on his father's side died from excess of drink, and another one died of consumption. One uncle died from phthisis after many years of drink excess.

His grandfather on his mother's

side drank more or less all his life, and died from some kind of rheumatic trouble.

CASE II.—B. A —, aged thirty-five, a mechanic, began to use spirits for insomnia and general debility, and finally became a periodic inebriate. He was under treatment for six months, and recovered. His father, grandfather, and two uncles, died of consumption. His mother was hysterical, and his grandmother on his mother's side died of some lung trouble. One brother died from chronic alcoholism, and a sister is a drug-taker.

CASE III.—C. H —, age forty-eight, an army officer, began to drink during the late war. He is now a dipsomaniac, with distinct free intervals of three months. His mother died of consumption two months after his birth, and his two sisters died of the same disease. His father's family is temperate, but several members have died of consumption. His grandfather on his mother's side was a sailor, and drank to excess at times.

CASE IV.—D. P —, age thirty-eight, a farmer. His drinking seems to date from a nervous shock following the burning of a barn by lightning. His two brothers are chronic inebriates, one sister is a morphine taker, and the other uses both spirits and drugs to excess for all kinds of imaginary evils. On his mother's side, a grandfather and three aunts and one uncle died of consumption. His mother is still living. His father died of pneumonia, and his grandmother on his father's side died of consumption.

CASE V.—E. J —, age thirty-one, a clerk of inferior mental and physical development, began to drink at puberty. Consumption has been the common family disease of both parents. On his mother's side both consumption and inebriety have been common. On his father's side consumption alone has prevailed.

CASE VI.—P. O —, age twenty-eight, is without business, and drank from infancy. He is now a chronic inebriate, and has had delirium tremens. His father and two uncles died of consumption. His mother is a woman of wealth and fashion, and she



lost her mother and one sister from consumption.

CASE VII.—M. B—, a lawyer, fifty-four years old, who began to drink at fifty from no apparent cause. His father and grandfather died of consumption, at fifty years of age.

CASE VIII.—D. T—, age thirty-eight, a conductor, began to drink after an injury to the spine. A brother, who was injured at the same time, died of consumption. The mother and a sister, the grandfather, and grandmother on his father's side, all died of consumption.

CASE IX.—D. B—, twenty-four years old, and without business, began to drink at puberty, and is now a chronic inebriate. Both parents died of consumption. His grandfather on his father's side, and two uncles on his mother's side, died of the same disease.

CASE X.—A. H—, thirty-four years old, a physician, took morphia for malarial poisoning, and then used alcohol to great excess. His mother and three uncles on his father's side died of consumption. His older brother became an inebriate at about thirty years of age, and one sister is in Colorado to prevent consumption.

CASE XI.—(*Quarterly Journal of Inebriety*, Oct., 1888, p. 390) "George Ulmer came from England in 1798, and settled at New Haven, Conn. He was a harness maker, a beer drinker, and after middle life drank rum to excess until death, at sixty-one years of age. His wife was a healthy woman, and lived to eighty years of age. Eight sons grew to manhood and married. Six of them died of consumption under forty-five years of age. One was killed by an accident, and one died from excessive use of spirits. Two daughters grew up and married; one died of consumption, the other in childbirth. They left four children; two were inebriates, and the others were eccentric and died of consumption. Of the children of the eight sons only ten grew up to manhood. Four of these drank to excess and died. Three of the six remaining died of consumption, and two others were nervous invalids, until death in middle life. The last

one, a physician of eminence, has become an inebriate and is under care at present. He is the only surviving member of all this family. The male members of this family were farmers, tradesmen, and men of more than average vigour in appearance. They married women (so far as can be ascertained) without any special hereditary history of consumption or inebriety."

CASE XII.—(*Ueber die Trunksucht und ihre Erblichkeit*, von) Dr. J. Thomsen, Archiv. f. Psychiatrie u. Nervenkrankheiten. Band 17, 1886. Seite 536) abstract: Father was an inebriate until after he was forty years old, at which time a cardiac affection developed itself from which he ultimately died, but which had the power of restraining him from exercising his morbid appetite. His brother was a drunkard too. Three of his sons became confirmed alcoholics, one daughter died of phthisis, and another son died of general paralysis.

CASE XIII.—Dr. Grasset. (*Scrofulous and the Tubercular Diathesis*, Brain, vol. 7, p. 19) condensed: Father violent, an alcoholic, and a libertine. Mother is very nervous, and died of cancer of the uterus. Many of patient's relations are drunkards. Her brother and sister died of chest disease, and another brother is always ill, and coughs a great deal. She was admitted May 3, 1879. One month previously she had a chill, rigors, and feverishness, which confined her to bed for four days; then she began to cough, and had two copious hæmoptyses. She sweats profusely at night, is losing flesh, and in a word has all the symptoms of pulmonary phthisis. Physical examination shows evidence of tuberculosis of both apices.

The histories of these cases give the most unmistakable proof that alcoholism and phthisis are not mere coincidences, but that they have a relationship so intimate that one may be converted into the other. The problem arises, however, as to the channel through which alcohol produces phthisis; for if these two conditions are interchangeable, it is obvious that they must possess a common physiological basis, and this I believe resides in the

nervous system. I have elsewhere\* (to which I beg to refer the reader) given good reason for believing that pulmonary phthisis is principally nervous in character, and by considering it as such, the natural association between the two diseases is at once established. For whatever else may be said of the action of alcohol, it is pretty generally understood that it possesses a special affinity for the nervous system, and that it produces its principal ravages in the body by operating on this, and by preference on the peripheral nervous tissue. Dr. James Jackson, in this country, and Dr. Wilks, in England, were, I believe, the first to point out this form of disease, and they called it alcoholic paralysis. It has since then received the more appropriate name of alcoholic neuritis, and it is characterised in its early stages by numbness, tingling, hyperæsthesia in the extremities, and later on by anæsthesia, paralysis of motion, loss of knee jerk, quickened pulse, shortness of breath, and frequently by pulmonary embarrassment. The brain and spinal cord remain comparatively normal. The morbid changes occurring in the peripheral nerves under the influence of alcohol are parenchymatous and interstitial, or in other words they are confined to the nerve substance itself, or to its investing membrane. As a rule these changes occur together, the latter in many instances depending on the former, but frequently one exists exclusively of the other; especially is this true of the degeneration of the nerve fibre itself.

It being established, then, that alcohol has the power of producing degeneration of the nerve fibres, it does not require a reckless flight of fancy to see how, by operating on the same tissue, it may bring about that peculiar destruction of lung substance known as pulmonary consumption. Degeneration of a nerve implies degeneration of the organ which it supplies with sensation and motion. Thus, degene-

ration of the sciatic nerve is followed by impairment of sensation and motion in the muscles and other textures of the leg—a condition which is almost constantly present in chronic alcoholism, and degeneration of the pneumogastric nerves is just as naturally followed by disease of the lungs, heart, stomach, and all the other organs supplied by them. This is no more than we may legitimately anticipate; for it has been amply proven that division of, and protracted pressure of tumors, aneurisms, &c., on the pneumogastric nerves are capable of calling forth all the destructive lesions of pulmonary phthisis.

The following cases will serve to illustrate the close anatomical and physiological association of chronic alcoholism and phthisis, as well as other destructive pulmonary changes with degeneration of the vagii, and of the respiratory centre (the latter of which practically amounts to the same thing), and with that of the peripheral nerves. The difficulty encountered in this research has not been so much in obtaining an abundance of material in which phthisis was evidently the direct result of alcoholic abuse, as it has been in finding the records of cases possessing all the points which I desire to emphasize in this paper, viz.: the co-existence of pulmonary disintegration, alcoholism, and nerve degeneration, well brought out by a thorough *post mortem* demonstration.

CASE XIV.—Drs. Oppenheim and Siemerling (*Archiv. f. Psychiatric und Nervenkrankheiten*, Bd. 18. S. 507). Male, addicted to alcoholic excess, was received in hospital January 26th, 1886. He was weak and stiff, but had no pain. At the end of the same month he became delirious, and also paretic in both legs and arms. Death occurred in March of the same year. On section it was shown that the heart was normal, and that he had pneumonia; microscopically it was proven that the radial, peroneus, and saphenous nerve had undergone degeneration. Not stated whether the vagii were examined or not.

CASE XV.—Drs. Oppenheim and

\* Pulmonary Consumption considered as a Neurosis. *Therapeutic Gazette*, Nov. and Dec., 1888.

Siemerling (*Ibid.*, p. 506). A female, age forty-five years, suffering from chronic alcoholism, was received December 26th, and died on the 28th of the same month, in the year 1885. On section there was found chronic exudative pleurisy on right side, as well as a caseous broncho-pneumonia and tracheitis. The great saphenous and superficial peroneus nerves had undergone parenchymatous degeneration of a medium degree. No other nerves were examined.

CASE XVI. — Dr. J. Déjerine (*Deutsche Med. Zeitung*, 1887, p. 711). Female, age forty-six, a hard drinker, suffered from paralysis of both upper and lower extremities. Had a pulse of 150-160, and her heart sounds were normal. Her death was caused by pneumonia. Section showed parenchymatous neuritis of the cutaneous and muscular nerves, as well as of both vagii in the cervical region.

CASE XVII. — Professor Schultze (*Virchow, Archiv.*, Bd. cviii. Heft 2, *Neurologisches Centralblatt*, Bd. vi. 1887, S. 271). Male, thirty-nine years old, developed diabetes insipidus in 1882, but had been feeble since childhood. He used alcohol greatly to excess in his younger days. Some time after the year 1882, he began to suffer from nystagmus, trembling in the arms, perversion of sensation (paræsthesia) in the legs, and from thoracic constriction. In 1886 he became subject to marked attacks of dyspnoea and death was caused by paralysis of respiration. Section: Degeneration of medulla oblongata and spinal cord, as well as that of the root of the vagus and hypoglossus. No account of the *post mortem* appearances of the lungs is given, but it is evident that these organs were implicated in the morbid processes, since death was produced through pulmonary paresis.

CASE XVIII. — Strümpbell (*Archiv. für Psychiatrie u. Nerven.* Bd. 14, S. 339). Male, aged forty-seven years, a potator, was received November 25th, 1881. His frame is large and powerful. Both of his arms hang helplessly by his side; hands œdematous, skin and tendon reflexes wanting; legs weak and

powerless; pulse, 124; temp. 38.2°; deglutition and power of speech impaired; after awhile œdema of lower extremities, cough, diarrhœa, dyspnoea; bronchial râles, paralysis of diaphragm, and death, February 13th, 1882. Section: Marked tubercular phthisis of both lungs. The radial median, crural, and sciatic nerves were degenerated very decidedly, and Dr. Strümpbell believes that the phrenic and vagii were also involved, but he failed to examine them closely.

CASE XIX. — Drs. Oppenheim and Siemerling (*Ibid.*, Bd. 18, S. 114). Male, twenty-six years old, a potator, was received in the Charity Hospital, January 17th, 1881, on account of delirium tremens. He complained of headache, giddiness, and fornication in the legs. He improved and was dismissed, but was received again on July 28th, 1883, on account of marked disturbances in the nervous system. He now suffered from complete impotence, lancinating pains and rectal tenesmus. In August, he became subject to polydipsia and polyuria; on the 12th of December, there was dullness in left supra clavicular fossa, and infiltration of both apices, and tubercle bacilli were found in the sputum. He gradually sank and died in August. Microscopic examination showed degeneration of the medulla oblongata, and of all the peripheral nerves which were examined.

CASE XX. — Dr. Oswald Vierordt (*Neurologisches Centralblatt*, Bd. v., S. 421, 1886). Male, thirty years old, much addicted to alcohol, and without a syphilitic history, suffered since March, 1884, with piercing, lightning pains in the lower extremities, as well as with weakness, unsteadiness, and fornication in the same. He also developed tubercular phthisis and died the following March. Section: extended tuberculosis of the lungs and degeneration of the columns of Goll, medulla oblongata, and the cervical and dorsal portions of the spinal cord.

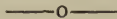
CASE XXI. — Mr. Sharkey (*British Medical Journal*, 1888, April 21, and *Journal of Inebriety*, January, 1889, p. 67) related a case of alcoholic paralysis of the phrenic, pneumo-



gastric and other peripheral nerves before, and presented specimens of the same to the Pathological Society of London. The patient was a female and addicted to the excessive use of alcohol. She suffered from weakness in her legs, numbness and cramps, and was incoherent in speech. Respiratory sounds were harsh, and in a few days after admission had a rigor, which was followed by a temperature of  $102.8^{\circ}$ , severe attacks of dyspnoea, paralysis of the diaphragm, and difficulty in swallowing. Respiration 40 per minute, and average pulse rate 140. Spitting of blood supervened, the lung apices began to break down, and she died after having been under observation nearly one month. Section: tuberculosis of both apices and inflammatory changes in the phrenic, pneumogastric, and popliteal nerves.

In these examples we have proof that pulmonary phthisis can be produced through the toxic action of alcohol on the nervous system. This is unquestionable in four of the cases, and, in so far as demonstrating the mode of the action of alcohol on the human lungs is concerned, it is equally true of the other cases; for I think it is pretty well established that phthisis is but the legitimate offspring of any persistent catarrhal state of the lungs, and that chronic bronchitis, and catarrhal and broncho-pneumonia, are but the milestones marking the pathway along which the disease travels to its final destination.

Such then being the relation between alcoholism and pulmonary phthisis, it is very readily understood why these two diseases should so frequently change places in different members or generations of the same family, and why they are so often associated with various other nervous disorders. Moreover, alcohol having the potency to produce phthisis *de novo* in the human subject, either directly or through hereditary influence, or both, as we have seen, it must, in view of its past and present widespread abuse in civilised countries, be a tremendous factor in maintaining the ranks of the hundreds of thousands of those who are annually slain by this terrible malady. To this and to no other conclusion do the premises of this paper point; and if one had the inclination to moralise on this subject it would be very interesting to inquire why the North American Indian, and other savages, were practically free from pulmonary consumption until they came in contact with the white race! When we connect the facts that alcohol and syphilis are the greatest curses which the Indian has acquired from his white civiliser, with the evidence which has been brought forward in this as well as in another paper on *Syphilitic Phthisis*,\* I think it must be obvious that these two causes are largely responsible for sowing the seeds of pulmonary phthisis among these people. — *Quarterly Journal of Inebriety*.



## A CONTRIBUTION TOWARDS THE DISCUSSION ON THE EMPLOYMENT OF ALCOHOL IN MEDICINE.\*

By A. G. BARTLEY, M.D., M.R.C.S., Stoke Newington.

My opinion is adverse to the use of alcohol, and I might proceed to give grounds for this opinion; statistics, quotations from authorities, as well as facts, I might supply myself, so as to make my paper more or less exhaustive.

\* A paper read before the Æsculapian Medical Society.

My aim is, however, less ambitious. I have called my paper a contribution merely. It is, in short, an account of certain incidents in my experience which bear upon the question; and these I relate as briefly as possible and in the order of their occurrence.

\* *The Polyclinic*, February, 1889.

I will begin by relating an incident which first directed my attention to this subject, and which will show that I had taken up a strong ground in this controversy even before I was aware there was such a controversy at all.

After I took my degree in medicine I passed at once into the army, and my first cases of independent medical practice were in a battery of artillery in the Punjab. After a year or so with this corps I served two years in an infantry regiment without a senior surgeon, all this time acting to the best of my lights, but entirely independent and uncontrolled. At the end of this period, and about my fifth year of service, a senior surgeon joined the regiment with power of superintendence. He was an able and a kind man, and it was not at all in a spirit of unfriendliness that, going in to dinner one night, he said to me, "I was in your ward this afternoon and found a bad case of delirium tremens in which you had omitted to order stimulants; however, I have made it all right." I replied, "I have no case of delirium tremens at present." He said, "Yes, a bad case, which will probably not survive, and so you had better take care." After some consideration I at length made out the case he referred to, and replied, "That man has no delirium tremens, and will certainly be at duty in a week." We thus had a difference of opinion. I begged him, however, to leave the case in my hands, which he did, and the man was at duty in fair health in a week. It was, in fact, a discovery to him, an old soldier, that delirium tremens could be treated successfully without stimulants; and, I must add, it was a discovery to me that, although I knew there was such a disease in the regiment, I had actually treated cases of the ailment myself without knowing it. That delirium tremens can be, and ought to be, treated without stimulants, is now a commonplace of practice. I speak of the year 1866. At that time the treatment consisted chiefly in administration of spirits and opium, and I take no great credit to myself for breaking away from the traditions of the profession. I simply did not treat the

disease by name. It would now be called "alcoholic poisoning." I looked on recovery as a matter of course, recorded the case as debility, sometimes from drunkenness, but more generally omitted the remark as likely to draw down the attention of the commanding officer to the offender. On the occurrence of the above incident, however, my attention was directed to the subject. I continued my treatment. My two colleagues continued theirs, and, although we were seldom without a case of delirium tremens, no case of any severity occurred among my patients. I need not say that the matter was often warmly debated. In those days Aitken's *Practice of Physic* was, as it still is, the chief authority in the medical service, and it was with keen delight that in the new edition of that year I found the treatment of this disease laid down: that, as it proceeded from an irritation of the nervous system by alcohol, the first condition of cure was to remove the cause, to forbid alcohol, and to give food in all possible ways, as the patients were dying of starvation—in fact, the treatment I had been pursuing. Aided by this book, I had the pleasure of making a convert of my senior.

The next three years are barren of incident. I served in the Channel Islands the greater part of the time with a battery about one hundred strong, and quite isolated. After this I returned to India, and was put in medical charge of the Artillery Division at Mooltan. It was in this station that I studied the heat fever, in which I was led to adopt a modification of treatment, which included, I may add, an avoidance of alcohol. I early made observation of another troublesome and prevalent Indian ailment—diarrhoea. Patients admitted to hospital with diarrhoea very rapidly recovered by dietetic means alone, and without drugs. The climate of the Punjab is dry, very different from that of Bengal, where, we know, diarrhoea does not always tend to cure itself. In truth, the diarrhoea was curative, proceeding from some improper ingesta, very fre-

quently a symptom of alcoholic poisoning. On coming to hospital, milk and arrowroot were given as diet, and, with rest and quiet, in a day or two the man was well. Similarly among the children diarrhœa, which was in any case rare, proceeded from something unwholesome they had eaten, or from fever. That arising from the former cause cured itself, and fevers in the hospital, cooled artificially, quiet, and darkened, seldom lasted over the second day. So that a child brought to hospital almost insensible with vomiting and diarrhœa would be quite lively next day, and without any special treatment other than cold applications. Thus, in addition to delirium tremens, which was very rare, two other important Indian diseases, diarrhœa and heat fever, were treated by sanitary measures, any drugs employed being mere adjuncts, and alcohol would only have marred the cure.

There were many cases of acute chest disease in the cold weather. On admission to hospital, they had plainly one thing in common with those suffering from alcohol; they were exhausted from sheer want of food. It was the first and main point of my treatment that this should be met by prompt feeding, most generally by repeated cupfuls of arrowroot and milk. I gave nitre or other neutral alkaline salt, and morphia for hacking cough. The tongue began to clean at once and the temperature to fall, and the haggard and worn patient got refreshing sleep and began to convalesce. In fact, the cases ran parallel with the former ailments I have mentioned, and I soon ceased to employ with them any form of alcohol. They usually passed through a crisis, sometimes extremely severe. The temperature became subnormal—at least, as evidenced by the thermometer; the face shrunken, with feeble pulse. My practice was, at first, to give hot wine-and-water in this stage. However, I found that the stage was very transitory, and that hot milk-and-water was quite as restorative; the patient soon went to sleep, and normal warmth returned.

Hepatic disease is not so frequent

in the Punjab as it is found down country, nor by any means so severe. I cannot recollect any deaths due to it directly during my stay, or any case of hepatic abscess. Minor congestions and enlargements were a frequent cause of sickness and invaliding. The treatment a few years earlier consisted in blistering, stimulants, and a mercurial course. Some time in 1863 a surgeon in Burma, whose name I cannot now recall, recommended ammonium chloride. This I tried, and thought it acted very favourably. About 1866 an immense change for the better was brought about by the introduction of podophyllin. It was called the vegetable mercury, having quite supplanted that metal, which indeed became on all hands, in all diseases, quite decried. At the time I now refer to (1870) I began to discontinue the use of podophyllin in hepatic disease, finding Epsom salts far more active and rapid in effects. I remember getting the idea from a translation in the Sydenham Society series of some German researches on the effect of certain saline springs, and made for myself an artificial mineral water. This, the equivalent of the present white mixture, eased the pain and reduced the size of the liver, just as we are now familiar with, but which was then to me a real discovery. After a few days of this treatment the patients were very much the same as convalescents from chest disease. They needed time and rest and suitable food—in short, nursing,—and had a chance of regaining health. Hepatic disease is, however, ineradicable. It soon recurs in the great heat of the climate and in men not very abstemious, and few once ailing with it serve long in hot climates.

Thus in one after the other of these important diseases experience was altogether against the employment of alcohol. It must be borne in mind that I began with no theory. I gave alcohol in pneumonia and hepatitis, while rigidly withholding it in fever and diarrhœa. I delayed the alcohol, however, in those diseases to a later stage, until the temperature was nearly normal, and at length discontinued it



altogether, finding that it retarded the cure and prolonged convalescence. I lost some cases of course, and among others one from delirium tremens, an old soldier who had frequently suffered before, and it was at first a matter of great pain to me to think that if I had followed the usual routine of treatment the cases might have ended differently. My colleagues, I knew, would probably have held so. However, my confidence revived in watching their practice. I had not the mortality or the severity of forms of disease in hospitals around me. I have seen two waiting-men attending on delirious cases, holding the patients in their beds, and preventing their injuring themselves, just as I had seen in the old regiment typical cases of delirium tremens; but I had no such cases, and I had no doubt then, nor have I now, that the delirium arose from the free use of stimulants combined with want of food.

After the regimental system had been abolished I found myself superseded in charge of the corps of artillery with which I had served four years, and was attached to a regiment of infantry. The surgeon-major in charge went on leave soon after I joined, and as I was the next senior, according to the new regulations I assumed charge, although quite a new-comer. It was then for the first time I became aware how much I had diverged from the ordinary practice—at least, as it was then in the service. The surgeon of the regiment next in rank to myself soon after I joined consulted me about a bad case of hepatitis, with high fever, foul tongue, and diarrhoea. He had given a variety of drugs which I do not remember. I found, however, that he was giving large quantities of food: jugged hare, strong soups, and six or eight ounces of port wine daily. I said I thought the man was getting too much food to digest, recommended milk diet, to stop the wine, and give salines. He replied, to my astonishment, in a nervous way, he would ask—his opinion. Now this man he mentioned was only a short time in the country. He was ten years my junior, and six or seven years his junior. I said no more, and went

about my business. A few days afterwards, however, the matter cropped up again, and he spoke with an astonishing degree of bitterness on the subject. He said he had once before met a man with these views, and he proceeded to refer to a case of mine which he had visited for me on the previous day as likely to die of hectic from want of support. I pointed out to him reasons why the ailment was not hectic, and assured him the man was not in danger. In truth, my case was severe Peshawur fever which resisted quinine, and the diagnosis was doubtful, as the man had originally come to hospital for treatment of a stricture. And, I may add, the man did not die. I saw him often years afterwards at Woolwich. I was greatly surprised at the degree of irritation this surgeon displayed, and became aware that the administration or withholding of alcohol was not merely a scientific question, but one for faith and belief, with strong feeling attached thereto. His case of hepatic disease died; so did at least one other in the two months I had charge of the regiment. My colleague did not again seek my advice in his difficulties, and he was clearly not converted, for, I regret to say, he died himself from the disease in the following hot weather.

A few months after my transfer to this regiment I came home in a troopship, and there again my divergence of treatment left me utterly isolated. I was third in order of seniority on board, and was put in medical charge of the women and children. It was the last troopship of the season, and carried only invalids and soldiers' families. Of the latter there were about seventy, with an average of perhaps two children in each. On the day after leaving Bombay a case of measles was found on board. I took the case into hospital, and every precaution to isolate it was adopted—unavailing, however. The sixth day afterwards six cases were reported. After another six days thirty more were found infected, and put under treatment; and I think that every child on board passed through the disease. The only number I can now

recollect is that, after discharging all convalescents, thirty-six cases were sent to Haslar Hospital on arrival at Portsmouth. There must have been from eighty to one hundred cases in all. All these I treated myself in the hospital, restricting myself to this duty at first with the idea of isolation, afterwards in order to control the treatment, for which I was personally responsible. I gave no stimulants, and met every case of high temperature promptly by wet towels to the chest and abdomen, and by giving for food very dilute Swiss milk *ad libitum*. This treatment met with deep disapproval on the part of the mothers, who were all strangers to me, and accustomed to very different treatment. Towards the end of the voyage I found the women were not unsupported in their disapproval. They carried their complaints to the various officers commanding detachments, and thus officially to my senior, the surgeon-major in charge. Now this surgeon-major had been unlucky. He had treated only two children on board, one of them his own son. They were both dead, whereas I had lost no cases, and so, although there was a difference of opinion between us, I had not much difficulty in arranging that the treatment should be left entirely in my hands. I will summarise the result. I was the only medical officer on board who gave no alcohol. I treated personally the largest number of cases, and I alone lost no patients. Moreover, of three children who died on board, two, as I have said, were treated by the senior medical officer, and the third by my assistant. I will give particulars of this, as it is a most illustrative case. It was not a case of measles, and was treated by him in the women's quarters, and I first heard of it when he told me the child was dying. I asked him to let me try to save it, which he gladly did. I put it in hospital with my measles cases. I stopped the wine, very much to its mother's disgust, stayed with it almost an hour, feeding it with milk and water, which it took greedily, and left it fully assured it was out of danger. The child lived for a week, and was

slowly improving. I gave it no drugs, as it had no symptoms. At the end of this time I told my assistant, whose patient it had nominally remained, to take it again to the quarters, as the hospital had become so crowded. He did so, and, notwithstanding all he had seen of my practice, he put the child at once on brandy, and it died in a few hours. I will make no further comment on these occurrences except to say that perhaps a more crucial experiment could not be devised.

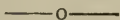
I reached Portsmouth in April, and expected to find the alcohol question a matter of keen debate in England. I need not say I was in this disappointed. I found matters running in the old groove. This is several years ago. We know matters are now righting themselves. To continue. During three years' tour of duty at home I avoided discussion, and, as far as possible, all consultations. I have, however, one instructive instance to bring forward from that period. In the family of a sergeant of the commissariat two well-grown lads, the eldest about ten years old, had caught measles and were very ailing. The mother frequently suggested that the boys should have stimulants, which I refrained from. Now it happened that this sergeant was married without leave, and his wife and family were not recognised. My attendance on them was therefore voluntary; not only so, but her acceptance of my attendance was voluntary, and I found before many days that the children were taking stimulants under the direction of some private practitioner, and I ceased attending. The father, however, was displeased at this, and in a day or two begged of me to call. I did so, and found a great change for the worse, in the eldest especially. To me the cause was patent; besides that, the room smelt strongly of brandy. I did not mention this, but said to the mother as kindly as I could that the boy had no more chance of dying than she or I had if she would follow my directions. She was obdurate, however, and I did not call again. In a day or two afterwards the father came and told me the boy had died. This

is the last instance I will bring forward from my military service.

I may mention a case which occurred since my coming to North London, a case of unusually large pleuritic effusion. In consultation with a physician, specialist in chest disease, the fluid was evacuated, and the patient made a rapid recovery. This physician some time afterwards remarked to me what an excellent case it was—what a remarkably rapid convalescence. I did not emphasise in my reply, as you may suppose, that which it is my duty now to do, that I had carefully omitted the six ounces of port wine daily he had prescribed for my patient. I did once succeed in converting a hospital physician to my views—a *rara avis in terris*. I one day undertook to stand in the middle of his largest ward, and from that position to point out every patient therein who had been taking stimulants for three or four days at least, and I succeeded. To me the pale worn aspect of the patient is unmistakable.

With this I end my paper. It is not for me to go into statistics on the point, such as may be found, I dare

say, in books or hospital reports. I know that such statistics are scant, for the question has not yet become a matter of calm scientific investigation. It is still one of the “fads” of the day, which the practical physician has not time to trouble about. Nevertheless, the reform is irresistibly advancing. No one can overlook the unmistakable diminution of the consumption of alcoholic liquors in hospitals. This is probably due in great measure to the greater temperance of the general community—a change of fashion rather than a reform of practice. It has been said long ago that the evils wrought by a theory have never in history discredited the theory; and certainly this would seem to be true in the practice of medicine. The melancholy history of the use of calomel and of opium in India is a saddening illustration. A few men here and there question the theory, and gain adherents chiefly among the young. The older men are not so much converted. They die out, and by-and-bye the world awakes and exclaims how foolish the last generation was.—*Lancet*.



## THE INEBRIATES ACTS, 1879 AND 1888.

### NINTH REPORT OF THE INSPECTOR OF RETREATS, UNDER THE INEBRIATES ACTS, 1879 AND 1888, FOR THE YEAR 1888.

*Home Office, July, 1889.*

SIR,—I have the honour to submit my Ninth Annual Report for the year 1888 as required by the Act.

1. Detailed information as to the seven establishments licensed by the justices during the twelve months will be found in the accompanying schedule.

2. No new Retreats have been opened during the year, but for all those which were in existence in 1887 renewed licenses were obtained.

3. There has been a decided increase in the number of patients treated, the aggregate admissions in 1888 being 99 against 66 admitted in the previous year.

4. The sanitary condition of all the

Retreats has been very satisfactory, and the health of the patients as a rule exceedingly good. I have only one death to report.

5. Several patients have been discharged for various reasons by the justices at the request of the licensees under Section 12, and leave of absence under Section 19 has also been granted in some instances.

6. No prosecutions have been instituted by the Home Office for offences against the Act or the rules made by the Secretary of State for the management of Retreats.

7. The official rules have been slightly amended in one or two minor points.



8. I have been furnished with reports from the licensees of the following Retreats with respect to the working of the Act, and the results of treatment during the year.

*Westgate-on-Sea.*—"It is very gratifying to see that the Act is daily becoming more known, and its advantages better understood. The number admitted to this Retreat during 1888 is a large increase over previous years. Nearly all the patients admitted during 1888 have done well, and, with a few exceptions, they conformed readily to the rules of the establishment during their term of residence, and left greatly improved in health.

"The alteration in the name of the Act is a great assistance both to the licensees and the patients, the very objectionable term 'habitual drunkard' being now abolished. With regard to the Act, as it is now amended, I have every reason to believe it will work well, and I think, from the results, there is every cause for congratulation and encouragement."

*Twickenham.*—"I am still of opinion that the 'Inebriates Act' works well; future legislation will no doubt remove some objections still remaining. I think it cannot be too urgently impressed upon intending patients and their friends that the best hope of cure in confirmed cases of inebriety rests in taking advantage of the provisions of the Act and that for not less than twelve months. There can be no possible objection to signing under the Act to those who desire to be cured. In all the cases I have had the magistrates before whom the patient appeared have been most kind and considerate, witnessing the signature in their private room instead of the open court. Experience proves to me that those who thus enter derive greater benefit than 'private' patients."

*Walsall.*—"There is great need of compulsory powers in the Act."

*Hales Owen.*—"On the whole last year's work has been satisfactory, many of the cases discharged having returned to their own homes and resumed their duties. We also still continue to hear good accounts of some of the former residents in the

Home, who appear still to continue in a satisfactory state.

"We still experience difficulty in getting patients to sign under the Act, though the reluctance on their part does not occur so frequently as it did.

"We continually receive letters asking us whether there are not compulsory powers enabling friends to deal with bad cases, and when we explain the steps to be taken, the reply generally is that it is perfectly hopeless, as the patient will not sign or enter a Retreat unless compelled. The accounts of these cases are often of the most distressing character."

*Rickmansworth.*—"There is still an urgent necessity for increased facilities for the admission of patients, otherwise the working of the Act still continues to be satisfactory and of great value in the treatment of inebriety."

*Hammersmith.*—"Having only been licensed under the Inebriates Acts during the past two years it is impossible for me to give a long list of cures effected through the means of this Institution; but still my experience leads me to think that to reclaim an inebriate is by no means so hopeless a task as many would have us believe. A very large percentage of failures from among those coming under our care there must always be; for even under the most favourable circumstances these cases are extremely difficult to cure. When first beginning this Home some three years ago I was very strongly opposed to the idea of seeking to have the house licensed but a few months' practical experience soon showed me that if I wished really to effect any good I must seek power legally to detain the patients, as, when the "crave" for alcohol seizes them, no amount of reasoning or persuasion will (as a rule) prevent the poor inebriate from demanding his or her liberty. Bound of their own free will (in the first instance) under the provisions of the Act they know afterwards that it is useless to seek their release before the expiration of their time, and so gradually they learn to practise self-control. I cannot, however, help wishing that more could be

done in the way of legislation, as it is often impossible to induce those really the most in need of control to enter a Retreat. Time after time I have had to explain to distracted relatives that entering a Retreat should be a voluntary act on the part of the patient; but when people have once become the victims of this terrible habit it is very hard to get them to realise that to place themselves under restraint is a desirable measure. It seems to me that in order to effect any great amount of good it will be necessary for the law to deal with inebriates somewhat after the manner it does with lunatics, exacting perhaps that, in addition to certificates from two medical men, the cases should also be investigated by two magistrates, who will thus be able to certify that in each individual instance the relatives have good and sufficient grounds for demanding that the law should relieve them of the anxiety, worry, and annoyance of those who have lost all power of self-control."

9. During the session (1888) an Act was passed by Parliament to amend the Habitual Drunkards Act of 1879. It is called the Inebriates Act, 1888, and is to be read as one with the original Act, and to be quoted together as the Inebriates Acts 1879 and 1888.

The following important amendments were made:—(a) The change of

title; (b) the unrestricted continuance of the Act beyond the ten years originally fixed for its duration; (c) the power given to the licensee, during temporary absence from his Retreat, to appoint a deputy having all his authority and responsibility for a period not exceeding six weeks in each year; and lastly (d) a clause to enable the application of a patient for admission to a Retreat to be attested before any two Justices without restriction to the particular jurisdiction for which such Justices usually act.

I have the honour to be, Sir,

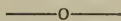
Your most obedient Servant,

H. W. HOFFMAN,

*Inspector of Retreats.*

The Right Hon. H. Matthews, M.P.,  
&c., &c., &c.,  
*Secretary of State for the Home  
Department.*

[The schedule appended to the report shows that the seven Retreats were licensed for ninety-four patients; that the number remaining on the 31st December, 1887, was forty-four; the number admitted during 1888, ninety-nine; the number discharged during the year, ninety-three; there was one death; and the number of patients remaining on 31st December, 1888, was forty-nine. Private patients, as well as patients under the Act, are received at all the Retreats.]



## ALCOHOL *v.* CHLOROFORM.

By DR. B. W. RICHARDSON, F.R.S.

A CORRESPONDENT writes to ask whether, in spite of temperance proclivities, I adhere to the rule, suggested in an old lecture on experimental medicine, that it is good practice to administer a dose of alcohol by the mouth before proceeding to administer chloroform. The answer to this question divides itself into two parts, and is perfectly straight on both lines. The first part of the answer is that abstinence from the habitual use of

alcoholic beverages has nothing to do with the scientific administration of alcohol in the form of a remedy. A physician, or a surgeon, because he administers chloroform need not therefore be himself habituated to chloroform as a narcotic fluid; and, as what is consistent with regard to one narcotic is equally consistent and true in regard to another, the most rigid abstainer from alcoholic drinks may with all propriety employ alcohol as a

means of cure or as an alleviator of pain, provided that he do not so use it as to make it a cause of permanent evil. The second part of the answer is, that it is often exceedingly good practice to administer a dose, and even a full dose, of alcohol before administering chloroform. The practice need not be universal, neither need it be indiscriminate. No wise and prudent administrator would think of administering alcohol to young children; neither would he administer it to men or women of calm and placid disposition, free of fear, and to whom stimulant is objectionable. But there are persons to whom the dose of alcohol may be a sound remedy. There are some of strong and excitable temperament, on whose bodies a full dose of alcohol acts as a sedative, relaxing their arterial vessels, and thereby preventing the arterial tonicity and contraction which chloroform so commonly induces, and which leads to the second or tetanic stage of chloroform narcotism. In these cases alcohol is a good antidote to the most serious dangers from chloroform. There is another class of case in which the patient has a feeble heart, and, relatively, a resistant circulation, indicated by a small yet resistant pulse and cold extremities. These persons are generally feeble, and are usually of nervous, hesitating mind. They are the very ghosts of fear, and to them chloroform is a poison of poisons; it makes the material contraction tetanic at once, and then the feeble heart, labouring under increased strain to overcome the greater task to which it is being put, gives way under the work, and stops from sheer fatigue and shock. Here again an antecedent dose of relaxing alcohol is the best of all preparatives for the toxic action which has to follow. It relaxes the vessels, it relieves the labouring heart, it quickens the course of the circulation, it feeds the brain with blood—making for the moment pot valour itself a virtue—and it allows the chloroform vapour to diffuse more evenly and rapidly. These are all advantages which cannot be gainsaid, and which ought not to be withheld. In one of

the late instances of death from chloroform, it was related that the patient had the utmost dread of the narcotic inhalation, and was pallid with fear. To such a patient, on whom chloroform would act like a blow on the pit of the stomach, alcohol would be a saving remedy.

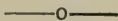
So much for the reasons; now as to the practice. In the practice, in order that it be truly scientific, there must be precision of administration in regard both to the thing administered and the period of administration. About the chloroform no one would willingly be inexact. No one would give chloroform concealed under half-a-dozen different names, in liquors of unknown strengths and proportions. A man who did so great an absurdity would be held responsible, in the event of a fatal accident, for malapraxis. Yet with alcohol this egregious blunder is ever under perpetration. One person will give it as brandy, another as whisky, a third as wine of any quality, without a thought as to strength or exact composition. This is all out of place in respect to the thing. The thing to be given is alcohol itself, diluted with water and measured out in precise dose like any other remedy of a medicinal kind; like chloroform. To an adult the dose of alcohol may vary from four fluid drachms, for an abstainer, to an ounce and a half, for one accustomed to it as a daily beverage. Next as to time of administration. It is customary when the alcohol is swallowed down immediately to commence with the chloroform. This also is a consummate error, since it allows no time for the alcohol to take effect. The point of practice is to produce the first degree of alcoholic intoxication; to wait until the vessels are injected with blood, until the face is flushed, and until the extremities are warm and tingling with vibration. At that fortunate preparatory period for commencing to give chloroform, there will be little danger of arterial resistance, and little danger of paralysis of the heart from intensity of pressure. By following these rules I have many times succeeded in preventing the second degree of chloro-



form narcotism altogether, which above all things means safety.

The same rule applies to the administration of methylene bichloride, and to all the anæsthetics in which chlorine forms a constituent part ; for,

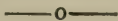
in the action of this series of chemical bodies, it is the chlorine that gives the tetanic touch to the muscular fibre, voluntary and involuntary.—*The Asclepiad*.



## ALCOHOL AND CONSUMPTION.

DR. N. S. DAVIS, in a late lecture before the Chicago Medical College, on the subject of alcohol and consumption, reviewed at some length his earlier investigations of alcohol in its relation to tubercular disease, and then quoted from the discussions of the members of the Pathological Society of London, eminent physicians, on the same subject, corroborating his own conclusions. He also said :—"The *Lancet* Jan. 26, 1889, in its leading editorial on the discussion in the Pathological Society, has the following significant statement :—"What is eminently worthy of the attention of practitioners in this connection is the frequency of tubercular disease in cases of alcoholic paralysis. In fact, the association of chronic alcoholism in all forms and tuberculosis was brought out by almost every speaker, including Dr. Payne, who said truly that the *inaccurate* impression that habits of alcoholic excess were in any way antagonistic to tubercular disease must be regarded as swept away.' In another paragraph it says, *emphatically* :—"We have seen the demolition of the belief that alcohol is a preventive of tubercle.' 'This is exactly what I demonstrated clinically more than one-quarter of a century ago. When this subject first came up the Boylston prize was offered for the best essay on the effects of alcohol in its relation to tuberculosis, and the

prize was awarded to Dr. Bell, of New York, who, after a careful and wide collection of facts and statistics, came to the same conclusion I have stated in the Medical Section in 1860. 'Now, gentlemen, when you find on record carefully observed facts and statistics illustrating the physiological action of alcohol and its destructive effects and tendency to produce degeneration of the various tissues in the human body, do not look upon them as the production of a temperance fanatic. We certainly have no evidence that the members of the London Pathological Society are total abstainers. I have searched for the effects of alcohol in the line of scientific investigation for fifty years, and you cannot blame me for some feelings of gratification to find my studies, experiments, and conclusions on the subject, confirmed step by step every year. I hope the day will soon come when we will get rid of the last pretence on which alcohol now acts as a remedy in acute diseases—viz., to strengthen a weak heart. It has already been demonstrated, both by experiments on animals and by abundant clinical observations at the bedside, that instead of being a cardiac tonic, it directly lessens the efficiency of the cardiac action until it ceases in diastole—paralysed. Where, then, are its tonic properties ? "



THE COMPULSORY DETENTION OF INEBRIATES.—It is stated that the Government are now considering the advisability of introducing a measure dealing with the compulsory detention of confirmed inebriates. It is impossible to dispute that the law requires strengthening in the direction suggested.—*Medical Press*, September 18.

## British Medical Temperance Association.

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*President.*

DR. B. W. RICHARDSON, F.R.S.

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### CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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Dr. W. G. MACKENZIE, 92, Richmond Terrace, Belfast.

#### NEW ASSOCIATE.

Mr. L. T. TOLPUTT, Queen's College, Belfast.


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The Annual Report has been sent to all members and with it a form of application for membership which is intended for securing new members; it is hoped that these will be used. More can be had on application to the Hon. Sec.

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### STUDENTS' PRIZES.

With the view of encouraging Medical Students to pay special attention to the subject of the action of alcohol, the Council has resolved to offer two prizes of the value of Ten and Five Guineas to such third-year students as shall pass the best examination on the "Action of Alcohol on the Body," at the beginning of 1890. The examination will be held in different centres.

 The Council invite special subscriptions for the above very important object as the ordinary funds of the Association do not admit of such an expenditure. These should be forwarded at an early date. Such special subscriptions need not be from members only.

SUBSCRIPTIONS RECEIVED DURING JUNE, JULY, AND AUGUST.

*Ten Shillings.*—Dr. W. Williams, Dr. Torrance.

*Five Shillings.*—Dr. Roe, W. Odell, Esq., Dr. Nesbitt, Dr. Giles, Dr. Cash Reed, J. J. Meacham, Esq., Dr. Wright, Dr. Davies, Dr. Brodie, Dr. Blunt, E. Shorland, Esq., Dr. Adams, Dr. Crespi, W. S. Eccles, Esq., R. Pickard, Esq., G. H. D. Robinson, Esq., Dr. Walker, Dr. Stokes, Dr. Wainman, Dr. Searson, Dr. Macdowell, Dr. Braidwood, Prof. McKendrick, Dr. H. Girvan, Dr. P. Young, Dr. D. R. Murray.

*Two Shillings and Sixpence.*—W. A. Davidson, Esq., R. C. Burn, Esq., W. Adams Clark, Esq., R. H. Crawley, Esq., M. McAdam Eccles, Esq., H. A. Eccles, Esq., E. E. Elliott, Esq., R. H. Elliott, Esq., S. E. Gill, Esq., L. L. Hanham, Esq., F. Johnson, Esq., W. W. Kennedy, Esq., E. W. G. Masterman, Esq., E. P. Paton, Esq., J. L. Thomas, Esq., H. E. Tracey, Esq., C. S. Woodd, Esq., C. F. Wightman, Esq., E. S. Dukes, Esq., L. T. Tolputt, Esq.

*N.B.*—Many members' subscriptions for 1888-9 have not been paid yet. It is earnestly requested that these may be sent at once.

Enfield, September, 1889.

J. J. RIDGE, M.D., *Hon. Sec.*



## *Society for the Study of Inebriety.*



THE quarterly meeting of this Society was held on Tuesday, 2nd July, at the rooms of the Medical Society of London, under the presidency of Dr. Norman Kerr.

The following papers were read:—

1. Inebriety in Russia and Central Asia. By Chevalier Max Proskowetz de Proskow Marstorff, President of the Austrian Society for the Study of Inebriety.

2. Alcoholic Trance in Criminal Cases. By T. D. Crothers, M.D., Hartford, Conn.

3. Provision for Pauper Inebriates. By L. D. Mason, M.D., Brooklyn.

Dr. HAZELL narrated the case of a male patient who, when intoxicated, threatened and attempted to kill himself and a relative of the patient; but who was forcibly prevented from so doing. The man, next morning when conscious and in his right mind, had no recollection of any violent design.

Dr. GEORGE HARLEY had remarked an extraordinary amount of drunkenness at the public market in Moscow—numbers of drunkards being visible early in the morning. The gross

inebriety in that country was largely due to the coarse and powerful spirituous drinks.

Dr. ARTHUR JAMISON had also made the same observation as Dr. Harley had done, at Moscow. His remembrance was that about one-third of the early morning frequenters of the market were in a state of drunkenness.

Dr. HARLEY and Dr. JAMISON concurred in praising fine Russian tea served without milk and with lemon, as useful in averting inebriety.

The PRESIDENT, in summing up, rejoicing at the encouraging circumstance that three such papers, containing a variety of suggestive topics, should have been contributed by gentlemen resident in other great countries. Each case of inebriety must be studied by itself, and medical treatment must be directed to the special physical conditions in the individual patient contributing to the disease.

A vote of thanks was awarded to the authors of the various papers.



## Notes and Extracts.

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**SUICIDES IN FRANCE.**—According to the *Revue Scientifique* the number of suicides in France has increased in sixteen years (1872 to 1887) to the extent of 55 per cent., their proportion to the total population having risen from 15 to 21 per 100,000 inhabitants. From 5,272 in 1872 the number had risen to 8,202 in 1886. Two remarkable facts may be noticed; first that insanity is more frequently the cause of suicides in females than in males, a phenomenon which is common to all climes; secondly, that cerebral disease and inebriety account for two-fifths of the total number.—*Hospital Gazette*.

**A GRATEFUL PATIENT.**—An inmate of the High Shot Home for Inebriates has favoured us with an account of the annual picnic of the patients at High Shot House, which was held a few days ago at Windsor, under the genial management of Mr. C. J. Boorne, formerly Dr. Branthwaite's manager, and now his partner. After describing the happy picnic, our correspondent adds: "I have never known a moment's unhappiness since I have been here, save in the sad memories of dark days ago. And now, thanks to the benefit which I have derived, I shall shortly go back into the world with bodily and mental health restored, and full of new aspirations and bright hopes. By the Divine aid, without which all else were in vain, I hope henceforth to be numbered among the successful cases of which the proprietors are so justly proud, and when 'my course is finished' to deliver up my body and mind to my Maker, at least unpolluted by the accursed drink."

**EFFECTS OF ALCOHOL IN MODERATE QUANTITY.**—Dr. Mogilianski (*St. Petersburg Dissertations*, 1888-9, No. 87) has investigated, in a painstaking manner, the effects of alcohol as a beverage on persons who are and who are not accustomed to it. He selected as his subjects nineteen healthy young men, mostly students, and estimated the constituents of their food and also their urine and fæces for several days

with and without alcohol. He found that the temperate use of moderate quantities of alcohol in those accustomed to it improved the appetite and increased the assimilation of nitrogenous principles; but that in persons not habituated to its use the assimilation of nitrogen decreased. Alcohol appeared to diminish the assimilation of fat. The destruction of the albuminoids in the body always decreased with moderate doses of alcohol, and frequently even with small ones. No diuretic action was observed; indeed, the amount of urine passed by the subjects while they were taking alcohol was less than when they did not take it. The quantity of alcohol given per diem—usually in the form of vodka—varied from 60 to 140 cubic centimetres.—*Lancet*.

**RESPONSIBILITY OF THE DRUNKARD.**—At the International Congress of Psychology, recently held in Paris, M. Motet read a paper in which he said that a man was not responsible for a crime committed during the delirious period of drunkenness, nor when the crime was committed by a man suffering from chronic alcoholism, whose brain has undergone those changes which compromise the regular functions of the organ. The responsibility was attenuated in the cases of those persons naturally of a weak intellect and who take drink badly; it is also extenuated when it has been proved that the man got drunk unintentionally. On the contrary, to those who got drunk with intention, and where alcohol was taken to give courage in order to commit a crime, no extenuation should be allowed. In conclusion, the author proposed that in presence of the great increase of alcoholism in France, and the terrible crimes committed under its influence, the Government be invited to take steps to guarantee society against criminal dipsomaniacs, and for that purpose to establish special asylums for the treatment of habitual drunkards. The assembly adopted this proposition unanimously.

THE

# MEDICAL TEMPERANCE JOURNAL,

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## Original Contributions.

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### REPORT ON 279 RETURNS OF MEDICAL OFFICERS OF WORKHOUSES AS TO USE OR DISUSE OF ALCOHOL THEREIN.

COMMUNICATED TO THE BRITISH MEDICAL TEMPERANCE  
ASSOCIATION.

*By J. J. RIDGE, M.D., B.S. Lond., Honorary Secretary.*

IN the early part of the present year (1889) certain doubts arose as to the advisability of supplying alcoholic liquors to the inmates of the Chichester Workhouse, especially the aged and infirm. The medical officer said, "it was a point to be determined whether total abstinence in Unions was advisable or not. For instance, did the inmates of teetotal unions live longer and were their lives more comfortable than those who were allowed a daily amount of stimulant? What he had to look to was the prolongation of life. If it were found that the lives of inmates were shortened by even a few months through being suddenly deprived of a stimulant to which they had been accustomed, then the Board were not justified in trying the experiment. He wished to act entirely on temperate lines, and therefore he did not think it was right to take away from the old people what he looked upon as part of their daily nourishment." These considerations necessarily had great weight with the Board, and it was felt that if the medical officer was uncertain as to the effect of the withdrawal of alcohol, the Board would not be right to override his opinion. As, however, he had expressed his ignorance of the result of the withdrawal in other Unions, it was agreed to issue certain questions to those Unions, which accord-

ing to the official return, expended on alcoholic liquors less than 5s. per head per annum.

The following were the questions addressed to the medical officers of the Unions:—

1. Under what circumstances are alcoholic liquors allowed to the inmates of the workhouse under your control?

2. How do you consider the health of those paupers to be affected to whom alcoholic liquors are not supplied?

3. Is it your opinion that the lives of paupers have been "shortened, by even a few months," by the withdrawal of alcoholic liquors?

To some or all of these questions 279 replies were received from the medical officers.

1. The first question was answered by 244, of whom 183, or 75 per cent., give alcohol to the sick only; 20, or 8·19 per cent., to the aged and infirm; also 29, or 11·88 per cent. to extra workers, &c.: 11, or 4·5 per cent., never give any; one reply was indefinite.

Among those who give alcohol to the sick there seem to be great differences: some reply "in emergency;" "in dangerous illness," "in extreme prostration," &c. Others appear to use it more frequently. In no case is there any regular administration of alcoholic liquors to the able-bodied. It is significant that even the aged and infirm are not supplied with such liquors in 224 workhouses.

2. The second question relates to the health of the inmates who do not receive alcoholic liquors.

There were 203 replies to this question: of these 73, or 35·96 per cent., stated that the health was better; 125, or 61·57 per cent., that it was unaffected; 2, or 1 per cent., that it was worse; 3, or 1·5 per cent., that the sick are worse without alcohol.

Some of the correspondents are very emphatic. One characterizes the question as "nonsensical, alcohol not being a necessity in health." Others say: "Not in the least," "most beneficially," "much better without." Several testify to a considerable improvement in the discipline of the workhouse since alcohol was omitted. One writes thus: "No beer, porter, or ale, has been used for ten years or more. Twenty years ago every pauper, male or female, who did an extra job, or thought himself ill, had half-a-pint of beer or porter daily, but I stopped that years ago; now they do not expect it, and their health and moral tone are both improved; thereby one great cause of jealousy and insubordination among the inmates is removed." Another: "There is certainly more contentment in the mass of the paupers since the withdrawal [of alcohol]." Another: "The health of the inmates is much better, and the discipline of the House is much better maintained, with



out alcohol." Another: "The discipline is better beyond comparison." Another: "Since the beer has been absolutely stopped the inmates are more reasonable and amenable to treatment." Another: "Six-and-a-half years ago half-a-pint of beer was given at dinner to all who were simply infirm through age; this was entirely discontinued, and the result was improvement of health, discipline, and conduct."

Adding together the first two groups it appears that according to 97 per cent. of the medical officers of workhouses the health of the inmates is quite as well, if not better, without alcoholic liquors.

One gentleman very pertinently observes: "Seeing that drunkenness and its consequences are the great cause for the necessity for workhouse provision, and that a large moiety of the admissions are made soon after an attack of inebriety has occurred: I find entire abstinence the first step to their recovery." Another: "As a rule their health is improved, for many inmates owe their position in the workhouse to excessive alcoholism, and its withdrawal thus adds years to their lives." Another: "A large proportion of inmates become paupers through drink—any method which proves to them that they can be well and happy without it, is worth adopting."

One medical officer writes: "The great majority improve so that I am in the habit of saying to the patient that six months' abstinence is the best doctor." Another: "I have had experience in prisons and workhouses, and in no single instance have I ever seen the sudden withdrawal of alcohol produce evil results, but quite the contrary. I have people in my infirmary who have been hardened drinkers, and are now after many years of having been deprived of their drink, in good health. . . . Alcohol is a luxurious drug, and we have no right to give indiscriminately to our patients a hair of the dog that has bitten them." Another writes: "I have treated cases in the workhouse years with alcohol, and eight or nine without it; and I think only those who have tried both ways can form an opinion. I strongly advise you to cut it off altogether. The master, though not an abstainer, agrees with me that the plan answers well, as the inmates are better and more contented."

The medical officer of one workhouse writes: "Wine and beer have been discontinued in this Union fourteen years, excepting under special circumstances. I have been surgeon to the — Union Workhouse twenty-eight years, so that I have had an opportunity of seeing the advantages and disadvantages of the disallowance of stimulants. The health of the inmates is generally very good, and the inmates are far more quiet and contented than they were when beer and wine were more freely

given. From 1862 to 1874, 453 inmates died in this workhouse at an average age of 58 years, when stimulants were freely given; from 1875 to 1887 inclusive, 400 only died, at an average age of 63 years."

Such a body of testimony to the advantage of total abstinence from alcoholic liquors is very important, and beyond cavil, coming as it does from men of great experience with a wide field for observation. All parts of England and Wales are represented, and the total number of paupers in the Unions from which alcohol is so successfully excluded is 45,584.

On the other hand, there are only two medical officers who give adverse testimony of a positive kind. One who attends to twenty-two paupers, says:—"If alcoholic stimulants were withheld in above cases (advanced age, debility, and disease) their health would speedily be affected, and in some cases soon terminate in death: those comparatively well seem benefited by a little." His field of observation is very small, and he does not appear to have tried how the paupers could get on without. Another replies: "They frequently collapse suddenly." He attends to 120 paupers; but as he states that he administers alcohol in any illness where advisable, and to the aged, it is difficult to understand who the persons are who so frequently collapse. These are the only two who express a distinct verdict against total abstinence, though one makes the amusing, though enigmatical observation, that "habitual drunkards and total abstainers are a curse to the nation." Two or three others guard their replies as not applying to the sick; but the question has reference only to those not suffering from any positive ailment, and on this point the testimony is conclusive.

The third question was, "Is it your opinion that the lives of paupers have been shortened, even by a few months, by the withdrawal of alcoholic liquors?"

To this question there were 223 replies:—

19 =	8.62	per cent.	say they are	...	prolonged.
160 =	71.74	"	"	"	not shortened.
29 =	13.00	"	"	"	... shortened.
15 =	6.72	"	"	"	... ,, if sick.

Hence 179, or 80.26 per cent. agree that no shortening of life follows the cutting-off of alcohol, against 29, or 13 per cent., who consider that such a result does follow. The remaining 15 must be left out of consideration, as the question does not refer to the treatment of disease. Hence, of the 208 who really answer the question, 86 per cent. answer it in favour of total abstinence, and 14 against it. It must be observed, however, that on this point it is impossible to arrive at any certain conclusion through mere

impressions one way or another. If one man cuts off alcohol, he cannot tell how long his paupers would have lived if they had had it; and if another man gives it, it is impossible for him to affirm, except as a mere matter of guess-work, that the paupers would have died sooner if they had not had it. Only one gives data on which he founds his opinion, and that is the medical officer of — Workhouse, before quoted, who found the average age at death to be greater by five years under a non-alcoholic régime.

Those who have never tried to do without alcohol are clearly unable to form any opinion worth a moment's consideration, though many such appear to be exceedingly dogmatic on the point. It is a matter, however, of common experience with those who have abandoned its use, that many aged, infirm, and bed-ridden patients, who have been taking alcohol for years, speedily improve, recover strength, and in many cases become able to walk about, as soon as the drink is cut off.

These returns are entirely in accordance with the results of other observers under other circumstances, such as army medical officers, medical officers of prisons, and other public institutions; and the conclusion is irresistible that the general prohibition of the manufacture, importation and sale of alcoholic liquors, save for strictly medicinal purposes, would be extremely beneficial to the health, longevity, and consequent prosperity of the nation.



## ALCOHOL FROM A MEDICAL POINT OF VIEW.\*

*By J. JOHNSTON, M.D. EDIN., L.S.A., Bolton.*

AMONG the social questions of the day there is none of greater importance than that of drink, which is no longer regarded as the "fad" of a few crack-brained enthusiasts, as it once was, but as a question which is worthy the attention of the Imperial Parliament. It is a question in which our national life is intimately bound up, and it is one which every thinking individual ought to study because it concerns their personal health.

This generation has witnessed a remarkable change in public opinion in regard to alcohol and alcoholic habits and customs. It is not so very long since it was considered no disgrace to get

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\* A Paper read at the Annual Conference of the Bolton Branch of the British Women's Temperance Association, held at Bolton, 21st November, 1889.



drunk. On the contrary it was quite "the thing" in polite society for gentlemen to drink to excess, and the ability to stand a bottle or two of wine was regarded as the *sine quâ non* of a *bon vivant*, the passport to the select circles, the distinguishing mark of a man of breeding, and a habit which was not inconsistent with religious profession. But nowadays to be known as a habitual drinker is to be utterly disgraced, and to incur the loss of all that good men and true hold dear. A man who is frequently intoxicated is shunned by his acquaintances and ostracised from society, while the mere suspicion of indulgence in strong drink is often a hindrance to social advancement; and this not only among the cultured, educated, and refined, but among the working classes. No master will employ a workman whom he knows to be intemperate, and such a man is despised by the superior artisans. The workman himself knows that if he would retain the confidence of his employer, attain proficiency in his handicraft, and better his circumstances, he must keep steady. This change in public opinion, which is one of the most hopeful signs of the times, considerably lightens my task to-day, for it is no longer necessary to dwell upon the evils of intemperance, which is admitted on all hands to be one of the greatest blots upon our social system, the chief cause of immorality, vice, and crime, and the great hindrance to the people's best interests; but the battle is now being waged between moderate drinking and total abstinence, and keen and severe is the contest, and momentous are the issues of this conflict. It behoves the combatants therefore to see that their weapons are sound and honest, and that their arguments are based upon scientific truth. Much as the temperance cause has suffered from the attacks of its opponents, I fear that no little injury has been inflicted upon it through the mistaken zeal of some of its friends. Nothing does a good cause more harm than misrepresentation, exaggeration, and false statements, made by those who are sincerely anxious to serve it. What we as honest men and women should desire to ascertain is the truth and to follow wherever it leads us; and I think we shall find that in this instance "the truth and nothing but the truth" will be quite sufficient for our purpose.

If we ask a man or a woman why he or she takes alcohol, we shall probably receive a different answer in each case, but all based upon one or more of the following ideas, viz :—

- (1.) That alcohol is a food which strengthens and nourishes the body.
- (2.) That it is a stimulant which imparts energy to it.
- (3.) That it assists digestion.
- (4.) That it warms the body and keeps out the cold.
- (5.) That it is a powerful remedy in disease.

Let us look briefly at each of these statements, and test them by experience and by the light of physiological and scientific knowledge.

1. *Is alcohol a food and does it supply strength to the body?*

It is still a moot point whether any of the alcohol taken into the body is converted into carbonic acid and water, but if this take place at all it must be to a very limited extent, by far the greater part of it being neither transformed nor destroyed, but eliminated as alcohol; and the teaching of medical science upon this point is that it is in no sense a food. But the idea is far from being abandoned by what I may call "the laity," who persist in regarding alcoholic drinks as strengthening and food-supplying agents. Our colliers take beer to help them to do their laborious work, mothers drink porter to assist them to supply nourishment to their babies, invalids take port wine to strengthen them; and in a great many cases this is done in perfect honesty of purpose and sincerity of belief in the virtues of these drinks. Now I venture to assert that they are taken chiefly for the sake of the alcohol they contain, for wine without alcohol would be like the play of "Hamlet" with *Hamlet* omitted, and it is this which we have mainly to reckon with when we speak of the effects of these compounds. Let me ask the following questions:—

If alcohol give strength why did Sir Garnet Wolseley forbid his men to take it, when they were about to attack Arabi and his wild horde, and to undertake that long and toilsome march across the African desert by which they saved Cairo, and made one of the grandest cavalry charges in modern military history? In olden times it was supposed that British soldiers must be primed with grog before facing the foe; but Lord Wolseley and Sir Frederick Roberts know from experience that our redcoats and bluejackets fight better and endure fatigue and exposure longer without alcohol than with it.

If alcohol gives strength how came it that in the last English Expedition to the North Pole the explorers who first succumbed to the intense cold and the exhausting fatigue were the men who used alcohol to "keep them up," while the abstainers held out the longest. The failure of that Expedition was to some extent due to an outbreak of scurvy among the men through a deficiency of lime juice, and it is an "open secret" that the Commander, Captain (now Sir George) Nares, himself contributed to that outbreak by persisting in loading the sledge parties with rum—thus diminishing the supply of lime juice—contrary to the advice of the medical authorities of the Admiralty. It has been proved beyond the shadow of question that the use of alcohol in cold climates is most disastrous, all Arctic explorers being agreed

that it is injurious to the men and favours the development of that scourge scurvy, which is even more fatal than the climate itself. In warm climates it is no less harmful, as witness the experience of Bruce, Livingstone, Stanley, Gordon and others, who are unanimous in condemning it, and do we not know that the one thing which our countrymen who go out to India are warned against is alcoholic drink?

Again, if alcohol gives strength, why was it that Professor Caville and the late Captain Webb both failed in their first attempts to swim the English Channel when they used it during the performance of the feats, and both succeeded in their second attempts when they abstained from it?

If alcohol gives strength, why do Grace, the cricketer, Hanlan and Beach, the scullers, Weston, the pedestrian, the Oxford and Cambridge boat racers, English and American cyclists, and all our champion athletes, tell us that to use it in their training diet is to court failure? One of the most imperative orders of the professional trainers to their pupils is, "stop your beer and be strictly t.t."

Why? Because they know that alcohol is a broken reed to trust to, a false friend who is sure to fail them in their hour of need. To what do such examples and tests as these point if not to the conclusion that, instead of strengthening, alcohol actually weakens the body, and renders it less able to stand fatigue; that instead of helping work it really hinders it? That this is so has been proved over and over again by observing its effects upon large bodies of workmen under different circumstances, such as harvesters, armies on the march, railway navvies, &c., and the results have invariably shown that more work and better work is done without alcohol than with it.

But it is sometimes contended that if alcohol be not a food and strength *supplier* it is a food *economiser*, and a waste arrester, as is proved by the fact that people may fatten upon it. This we do not deny; but we hold that instead of its being an argument in favour of alcohol it is really one of the strongest against it. It is a fact that the elimination of waste from the tissues of the body is diminished by alcohol, but to say that this is conducive to the health of the individual is something like saying that the people of Bolton would be healthier if our Corporation encouraged the retention of a portion of its sewage. For it must not be forgotten that it is to the accumulation of *waste* products within the tissues that the fattening is due, and instead of this being a sign of health it is really a proof of disease. There are very few surgeons who have not had sad evidence of this in their experience, and they will tell you that when a man who is accustomed to take much drink—not necessarily a drunkard—receives any



wound or injury their great fear is that it may take "bad ways," such as erysipelas, &c., and prove fatal, even though the injury may be apparently trifling. It is well known that such men are "bad subjects" for injuries and acute diseases such as rheumatic fever, inflammation of the lungs, &c.

Depend upon it, the idea that alcoholic drinks are strengthening is a fallacy, which has been relegated by modern Science to the limbo of exploded theories.

2. *Is alcohol a stimulant?*—A stimulant I take to be something which can impart energy or supply force to the body in some way. Let us see whether alcohol does this. Its first visible effect is flushing of the face and quickened action of the heart, an organ which may be compared to a steam engine, with its governor for regulating the supply of steam from the boiler. Like the engine, the heart is provided with a governor, its regulating or controlling nerve, which inhibits or restrains its action, as is proved by the fact that if this nerve be cut or paralysed, the heart at once begins to beat faster, and ultimately runs away, so to speak, like a brakeless locomotive going down an incline. This is exactly what alcohol does, making the heart beat faster by temporarily paralysing its regulating or controlling nerve, removing the brake, or lifting the governor, so that, freed from its natural control, it runs away. Alcohol, therefore, acts not by stimulating the energiser, but by paralysing the regulator of the heart; not by supplying more force or energy, but by liberating the existing supply, and thus causing it to be exhausted sooner. And the same is true of all the blood-vessels; the vaso-motor nerves, as they are called, which control their size, being paralysed, causes them to dilate and become too full of blood. Hence the flushing of the skin and the rapid action of the heart are due not to stimulation, but to paralysis, and hence alcohol ought to be regarded as a sedative and narcotic, rather than a stimulant, the apparent stimulation being really due to paralysis. And this narcotic or paralysing action will serve to explain all the results which follow its administration. For instance, a tired man no longer feels tired, and a hungry man is no longer hungry, after a glass of spirits. Why? Not because the tired feeling is removed and the hunger satisfied, but because the alcohol has paralysed these sensations for the time being. A sleepless man takes a "nightcap" of whisky-and-water, but instead of being stimulated and kept awake he is soothed to sleep; and its power in benumbing pain is well known. Again, a man suffering from grief takes to drink, not because he thinks it will stimulate him to a keener sense of it, but to "drown his sorrow." In calling alcohol a stimulant, therefore, we are surely using a misnomer, for it is one of the most powerful sedatives known.

3. *Does alcohol assist digestion?* Ever since St. Paul advised Timothy to take a little wine for his stomach's sake, it has been asserted that alcohol was good for the stomach. The worthy people who rely upon this text forget that the advice was given by one who was not a physician to one who suffered from an unhealthy stomach, for which a physician would probably have prescribed "a little medicine" instead of "a little wine." To make a chance word of well-meant advice given under such circumstances of universal application, and an excuse for taking not only "a little wine," but a daily allowance of beer, porter, brandy, whisky, gin, &c., whether our stomachs are weak or not, is surely the height of absurdity.

As to whether alcohol does assist digestion or not, I think I cannot do better than quote the words of Sir Wm. Roberts, who in his "Lectures on Dietetics and Dyspepsia" champions the cause of alcohol. I quote from Dr. Ridge's admirable summary of Sir William's conclusions from his own experiments on this point. "It was found that no quantity of alcohol in any mixture ever increased the rapidity of digestion, and that while 5 per cent. of spirits and port, or 10 per cent. of hock and claret, did not produce any appreciable effect, more than this slightly retarded the process, and this retardation increased *pari passu* with the increase of the amount present. Sherry hindered digestion even when but 5 per cent. was present. . . . The national beverage, beer, gave no better result. It does not assist the chemical process of digestion, and more than 10 per cent. does evident harm."\* It is true that if a man eat more than he ought to do, alcohol will remove the unpleasant symptoms, but this is due not to a quickening of digestion, but to a benumbing effect upon the nerves of the stomach; and the inference to be drawn from it is not that alcohol is good but that over-eating is bad.

4. *Does alcohol warm the body?* There are few ideas more tenaciously clung to than this, that a glass of spirits taken before going out on a cold night will warm the body and "keep out the cold," as it is said; but the truth is, that instead of doing this it really cools it and lets the cold in by sending the blood, which contains the heat, from the internal organs to the skin, where it is exposed to the air and rapidly cooled. For it must be understood that the flushing is not confined to the face but extends over the entire surface of the skin, and hence the glow and *feeling* of warmth are due to congestion of the blood-vessels of the skin, while the internal organs are deprived of their natural amount of blood and heat. This congestion of the skin also tends to

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\* *Medical Temperance Journal*, January 1886, page 76.

induce perspiration, the evaporation of which chills the surface, thus increasing the liability to "take cold." That alcohol lowers the temperature of the body instead of raising it, is now a thoroughly established fact in medical science.

5. *Alcohol in disease.* That alcohol is a powerful and valuable drug in disease cannot be denied, but if we would receive the full benefit of this or of any other drug in illness we must abstain from it in health. What good can we expect from alcohol as a *medicine* if we use it every day as a *beverage*? The very use of it thus, or as an occasional luxury, deprives it of its medicinal power, and thus the abstainer when ill is better off than one who is accustomed to it, because his physician is armed with a weapon which the moderate drinker's has not.

But of late years a great change has come over medical opinion in regard to alcohol and the Temperance question. There is an association called the British Medical Temperance Association, composed entirely of medical men and students, which now numbers over 500 members, the only condition of membership being personal abstinence from alcoholic liquors as beverages, no pledge being required. But this society by no means represents the total number of abstaining doctors in the country, fully as many more being so in deed, if not in word—for it takes a certain amount of courage for a medical man to proclaim himself an abstainer—and these include not only the rank and file, but many of the leaders in the profession, University professors, and distinguished metropolitan and provincial physicians and surgeons.

Anyone who compares the present with the not very distant past, must admit that alcohol no longer holds the place it formerly did. It is not now regarded as the *panacea* for every disease, and the *sine quâ non* of our *materia medica*. Its value in disease is being seriously questioned, the sphere of its operation has been curtailed, and its prescription is much less frequent than it used to be. Like bleeding and other heroic methods of treatment, it is slowly succumbing to the irresistible influence of physiological experiment and clinical experience. The treatment of fever by alcohol has been a thing of the past ever since the mortality in the wards of Dr. Gairdner, of Glasgow, was reduced from 36 to 8 per cent., solely by the reduction of alcohol to a minimum. The statistics of the London Temperance Hospital, where no alcohol is ever prescribed, show that diseases in which it was formerly considered indispensable can be treated quite as successfully without it. Another significant fact is that in nearly all our workhouses, hospitals, and infirmaries, the amount of alcohol per head has been and is still being considerably reduced. In Manchester Infirmary, and Cheadle and Monsall



Hospitals, with their 6,000 patients a-year, the amount spent upon alcoholic drinks in 1875 was 7s. 2 $\frac{3}{4}$ d. per head, which was gradually reduced until in 1882 it was only 11 $\frac{1}{2}$ d. for each inmate; and there are very few hospitals where the drink bill is not diminishing.

In an article on "Stimulants in Workhouses," the *British Medical Journal* of 16th November, 1889, says:—"In the four years prior to December, 1889, there had been a reduction of 25 per cent., and in fifteen years more than 45 per cent. . . . The results of this marked decrease have been watched with deep interest. Isolated testimonies by workhouse medical officers have gone to show that the health of the paupers has not suffered, that the rate of mortality has not been heightened, and that discipline has been decidedly improved. A more formidable array of evidence has recently been collected from parochial medical officers. . . . It is satisfactory to learn that 80 per cent. of the reporters have observed no injurious influence on the health and life of the patients under their care."

The prescription of alcohol in disease, necessary, nay indispensable, as it undoubtedly is in some cases—and I personally should not like to be deprived of the use of such a powerful and valuable drug—is not unattended with danger to the patient's future. It is one of the drugs—nay, I might almost say it is *the one drug par excellence*—which creates a desire for itself, and it is no uncommon experience to find that a patient for whom it was prescribed as a remedy during an illness continues to use it after recovery as a beverage; and such patients will glibly tell us that they take it "because the doctor ordered it," conveniently oblivious of the fact that the doctor also "ordered" medicine and other things, which they have long ago discontinued!

As this origin of the alcoholic habit is most frequent in the case of women I shall now speak of

*Women and Alcohol.*—There is nothing which has such a powerful and almost irresistible fascination for women who have once come under its spell as alcohol, and it is really astonishing with what excuses they will justify their indulgence in it, excuses which only serve to give point to the French proverb *qui s'excuse s'accuse*. One takes stout to keep up her strength and to help her to nurse her baby; another has a weak stomach or a bad appetite and requires something to assist her digestion; another has weak nerves or a weak heart or languid circulation; another feels "a bit low" in the morning and takes a drink to revive her; another has just a toothful of whisky-and-water at bedtime to make her sleep; another blames "the dreadful weather." Not one has the courage of the old farmer in the story, who was sitting quietly in the corner of a country inn, when a traveller

came in, saying "Landlord, bring me a glass of whisky because I am very cold." Another traveller entered with: "Landlord, bring me a glass of whisky because I am very hot;" whereupon the old farmer exclaimed, "Landlord, bring *me* a glass too because *I likes it!*"

Baneful as is the effect of excessive drink upon men it is infinitely more so upon women, and, whatever be the explanation, it is undeniable that it exercises a more potent influence and takes a deeper hold upon a woman who has once given way to it than upon a man. Reclamation is always more hopeless; and it is to be regretted that they have so many facilities for obtaining drink "on the sly." Among these are the grocers' and confectioners' licenses which do most certainly encourage secret drinking among women. One day I overheard a woman who had been served by a grocer say to him, "Put it down sugar!" That was to me a revelation of a practice which I fear is but too common, and which enables women to get drink without the knowledge of their husbands. As a rule a man drinks openly, but a woman generally does it secretly, the last persons to suspect her being often her husband and her most intimate friends.

Young girls should on no account be permitted to take alcohol as a sedative for their pain. The temporary relief it gives is often dearly bought at the expense of a weakened nervous system, and perhaps the establishment of a habit which may one day involve her in cureless ruin. During the nursing period its use is dangerous and often disastrous. There is next to nothing in porter, &c., from which milk can be made except the water, and as the alcohol is thrown out of the body *as* alcohol the milk must contain some of it, and thus the baby imbibes it with its mother's milk. A taste for it may thus be engendered in the infant for which its own mother is responsible. If alcohol be injurious to grown-up men and women, what must it be to the tender constitution of the newly-born child? The idea that it is absorbing this dangerous fluid ought surely to be sufficient to deter any mother from taking it, and even if she believes that it is doing her good, which is very doubtful, she is no true mother if she will not make this small sacrifice for her child's sake. The most trying period of all is at the change of life. One of the symptoms consists of mental depression and low spirits, from which there is a strong temptation to take refuge in alcoholic drinks. At this time, as Dr. Kate Mitchell says, "the desire for alcohol sweeps over her like a storm," and if not battled with and conquered may result, as it has done in sadly too many cases, in her becoming a confirmed alcoholic.

Time will not permit me to discuss the many other interesting medical questions in connection with alcohol—with the social,

political, moral, and economic aspects of the question, I have of course nothing to do at present—but there is one, the most serious of all, which I should like to refer to, viz., the transmission of the alcoholic habit from parent to child, or in other words—

*Heredity and alcohol.*—It is a truly terrible thought that the effects of alcohol are not limited to the individual, but may be inherited by his or her offspring—another example of the iniquities of the fathers being visited upon the children—for it is now a thoroughly established fact that the alcoholic habit *can* be thus transmitted: that the child of a person who has indulged in alcohol has inherited a something which we call a predisposition or tendency to drink. This does not imply that every child of an alcoholic will or must become one, but it does mean that such children are more *likely* to become victims than those whose blood is free from the taint. It behoves them, therefore, to be extremely careful about alcohol, and knowing the danger which lurks in their blood, their only safety is total abstinence, so as not to give what we may call this alcoholic germ the chance of developing, by thus starving it to death. For them abstinence is not only advisable, but absolutely necessary.

The conclusions, then, which I think we are justified in coming to, are—that alcohol is at best a doubtful friend; that its alleged benefits are based upon fallacies regarding its true nature and its action upon the body, that the evils resulting from its use and the dangers attendant upon it are far in excess of the good claimed for it, and that personal abstinence from it as a beverage is the duty of all who desire to retain health of body and mind—the *mens sana in corpore sano*—to live to the full extent of their usefulness, and to promote the best interests of their fellows.



## Miscellaneous Communications.



### SCIENTIFIC ASPECTS OF TEMPERANCE.

A NATIONAL TEMPERANCE CONGRESS, convened by the National Temperance League, assembled at Birmingham during the last week in October. In the scientific section, which met on Tuesday, 22nd October,

Dr. B. W. RICHARDSON, F.R.S., as president, said he accepted this as a fitting opportunity for offering con-

gratulation to medical abstainers from alcohol. He did not wish to boast of triumph, because triumph was not complete, and if it were it had better rest on its own merits. But when men like himself had been looked upon for a long time as heretical on the question of alcohol they could but rejoice in finding, at last, signs of



recognition that the so-called heresy has in it something of the light of truth. He conceded, willingly, all the difficulties that had hitherto stood in the way; for medicine, as a practical art, as well as a progressive science, must, of necessity, be conservative in respect to modes of practice. The practice of medicine is the art of medicine led on by science, and the medical men of science are, and always have been, in advance of that common understanding of the art which, in time, becomes the property of everyone; a property the rights of which must not be invaded. No man could, therefore, be so rash as to accept the teachings of medical science until those teachings had entirely cleared the way and made themselves so demonstrable in the art as to gain the acceptance of the popular mind and the general confidence of the people. After showing the truth of this statement by reference to the various phases of medical practice and the changes in them, as, for instance, in the question of blood-letting, the President observed that in the matter of alcohol and its use in medicine the science had gone ahead of the art; and the practice, which means the art, had had to come up to the science. It was most gratifying to them, as abstainers, to witness and recognise the rapid advance in that direction, and to discover that the very resistance which has been offered has been one of the most potent aids to success, since it has led medicine to accept a new practice founded on science, as fast as the public will permit her decently and consistently to reform her programme. In proof of this reforming progress many striking illustrations were adduced, after which the speaker passed to indicate other lines of advancement not less distinctive and not less important. In this division of his discourse the speaker dwelt on the change of medical sentiment respecting alcoholic beverages as necessary foods and as grand sustainers of animal power and vitality. Not many years ago this affirmative view was all but universal in medical circles, and those who dared to challenge it

did so with bated breath; now there are hundreds of medical men who challenge it without the slightest fear or hesitation, both by word and by practice. Thus he was himself the president of a medical society consisting of 400 medical men actively engaged in practice, and of 100 students earnestly engaged in their student work, every one of whom, practitioners and students, were total abstainers from alcohol, in deed as well as in word. It would be impossible to give more powerful evidence in proof of the change of opinion mentioned, but even that might be doubled in force because there were quite as many again in the ranks of the medical profession who followed the same practice in deed, although for different reasons they had not publicly announced their conversion to total abstinence. In the next place there might be observed a general admission by all classes of medical men that there are times in the life of the human family when the habitual use of alcohol ought to be absolutely forbidden. All now joined in teaching against the habitual use of alcoholic beverages by the young; and all, equally, joined in advising those inebriates who said they could not live without alcohol, that in their case total abstinence from alcohol was the one and sovereign cure. Nothing could be more satisfactory than this progress, but unfortunately it was lessened in value by the want of two further advances which were bound in time to be added. All persons were born total abstainers; and the young, we are told, ought to remain under that rule. That rule we may accept as right so far, but we want to know definitely when the right became wrong, and at what age precisely the birth pledge of total abstinence ought to be broken. The question was one which medical men, of all men living, were bound to answer. It was a medical question entirely, and could only be solved to the satisfaction of the world by them. Abstainers said it was solved on the ground that as nature had made no provision nor suggestion for the change therefore no change was required; still abstainers

were open to conviction, and ought to be challenged by the voice of authority if their argument were assailable. Again, in respect of the total abstinence of inebriates. It was only fair to expect the members of a profession who condemn the use of alcohol by those who were enslaved by it to condemn equally its use by those who might be enslaved by it. Against the habitual use of all other poisons professional men were opposed root and branch, and why such a devastating poison as alcohol, the most mischievous of them all, was made an exception, was one of the most incomprehensible things in the whole range of medical theory and practice. An important topic was next brought forward bearing on the reduced medical use of alcohol in public institutions, in the gaols, the asylums for the insane, the workhouses, and the hospitals for the sick. Naturally the gaols came first under review with the unanswerable evidence that in them, superintended as they are by a most able medical staff, no injury whatever to health of the inmates has been observed from the adoption of total abstinence. Passing to the asylums for the insane, the tendency towards total abstinence was shown to be attended with similar good reports, and a passage was read from Dr. Bucke, of the large asylum at London, Ontario, in which that distinguished superintendent reported his experiment of introducing, with the most signal success, the practice of total abstinence through the whole of the institution under his supervision. The adoption of the same system in the workhouses was commented upon from the medical side with results which were extremely remarkable as indicative here also of change in practice as well as theory. Dr. Richardson cited, from evidence recently collected at Chichester, the opinions of no fewer than 279 members of the parochial medical staff engaged in workhouse practice in England and Wales. The results are startling as to the manner in which they indicate a change of professional opinion based on observation of phenomena. Twenty years ago the

questions would not have been thought worthy of consideration, whereas, now, nearly half the medical staff engaged in parochial practice have lent to the subject their most serious attention, and in the proportion of over 80 per cent. have given their verdict that the withdrawal of alcohol has had no deleterious influence, either on health or life. In hospital practice it was shown further that the tendency was towards the reduction of alcoholic drinks along the whole line, with the additional fact that in one hospital at least, "The London Temperance Hospital," alcoholic drinks were entirely excluded, and with results affording the amplest justification. To the above-named advancements towards abstaining views by professors of the healing art the fact was added that the profession now acknowledged the existence of a distinctive mortality, amounting in this kingdom to nearly one-tenth of the whole mortality, arising from the use of alcoholic beverages. The recognition of such a fact is singularly precious, since the history of medicine, as represented in its brightest ornaments, favours every movement for the saving of life. "We make," said the speaker, "every youth who enters our pale swear to do his utmost against pain, disease, and death. Shall we, then, whose eyes have flitted across the light, stand by and allow between nine and ten out of every hundred around us to die, bearing with them to the grave at least thirty-nine days of pain and disease, without striving with all our mights, and as no other men can strive, to exterminate at once and forever the cause all of this disease and all this mortality? With other men the work of extermination may be a fond task, a self-imposed, a noble task, but not a call. With us, sworn guardians of the public health, it is a duty as well as a noble task. We are the men of men who have received the call; and, as I am sure that the great soul of medicine is true to its vocation so soon as it is conscious of the lines on which it is bound to exercise its power, so am I confident that the recognition of the huge removable mortality springing from the use of alcohol

will lead the members of the whole profession in good time to take the lead in their efforts for the removal." The recognition of alcohol as the producer of what may be called protean degenerations of the human body, and the manner in which the pathologists were tracing back diseases bearing different names to an alcoholic origin, was next forcibly considered and illustrated. Alcoholic consumption and alcoholic paralysis were here specially noticed, with the intimation that the absolute proofs of these and other alcoholic degenerations were tending to bring alcohol into deeper distrust with the members of the medical body than any other set of evidences ever brought against it. And there is another allied objection to it gaining daily in effect, namely, the steady appreciation of the truth that to undervalue the power of alcohol in creating a dangerous craving and liking for itself is one of the most hazardous of experiments.

The last point dwelt upon had reference to the use of alcohol as a remedy in disease. Dr. Richardson claimed the right of the physician to prescribe alcohol like any other remedy, but as alcohol, and always as a weapon of precision. This plan removed all difficulties; it shows positively what alcohol can and cannot do in disease, and corrected numberless errors of a past day. From such experiences the president confirmed what Dr. Farrington expressed in the *New York Medical Journal* of September 20th of the present year, that "man is an animal who requires rest, pure water, and good food in health, and the conditions do not change when he is sick; and he who in his wisdom believes that he can improve upon the elements needed for man's sustenance in his extremity, by substituting alcohol for water or milk, and drugs for food, is wise only in his own conceit, and has yet to learn the alphabet of physiological science." The address was concluded as follows:—"These are the views which far and wide are now permeating the world of medicine on the subject of the alcohol controversy. I

do not declare that there are no wide differences yet to be settled. I know that on one question alone, the use of alcohol in states of fever, there is much that requires to be reconciled. I know there are many who are not content to admit that the legitimate action of alcohol as a remedy is confined to its special property of relaxing muscular fibre, organic and inorganic; but, taking it all in all, I am confident that the tendency and tone of the medical mind is towards full and earnest inquiry, with as little prejudice as possible, and with a strong and increasing bearing towards the principles of total abstinence which we profess and practise. The hopefulest sign is that the young in medicine are interested above all others in the question which has been before us. The young once with us, the students with us, all will be with us on medical behalf if we are right. They hold the proud position of being our pupils and our judges; and as firmly as I believe that we, on our side, are right, as confidently do I leave the controversy to their ripening, widening knowledge, and matured experience."

Dr. NORMAN KERR, President of the Society for the Study and Cure of Inebriety contributed a paper upon "The Study of Inebriety and its Relation to the Temperance Movement," in which he said:—

"The first half of the present century can claim the distinguishing feature of an organised attempt to war against drunkenness, and the laying broad and deep of the foundations of the great temperance movement. The results achieved have been truly magnificent; but they yet fall far short of the necessities of the case. While some phases of our prevailing intemperance have improved, others have become worse; this is notably the case in respect to the increase of intemperance amongst women. Prison statistics in England and Wales show that the proportion of male to female prisoners, which used to be seven to one, is now only three to one. Of persons who have been more than ten times convicted, and are chiefly habitual drunkards, there were in England and



Wales, in 1884, 5,188 males and 9,451 females. The men are only 10 per cent., the women 31·6 per cent. of the total commitments of already convicted offenders. In 1878, the females were 5,673, and in the following years 5,800, 6,773, 7,496, 8,946, 9,316, and 9,451. This was a serious phase of alcoholic indulgence. There had also been some signs of retrogression in advocacy on fashionable temperance platforms. The uninformed people who think only strong spirits can intoxicate are labouring under an extraordinary error. In 152 cases discharged from the Dalrymple Home 12 were cases of wine or beer inebriety, or some 8 per cent. of the whole number. The first propagandists of nephalism knew that in all intoxicating drinks they had to do with a noxious article, a material poison, and a series of phenomena of actual poisoning, as well as with a chain of mental and moral *sequela*. Some of the successors of those truly wise and far-seeing reformers have looked at the physical symptoms with their blind eye, and directed their sound optic only on the immaterial disorder of mind and morals. The reason why all who begin drinking intoxicants do not continue to be 'limited' drinkers is because some individuals have a defective resisting power, or special proclivity to excess, or susceptibility to the anæsthetic properties of the subtle poison. It is only because the majority of mankind are not so handicapped that the 'moderate' drinkers outnumber the drunkards. The susceptible conditions referred to are symptoms of a diseased condition, similar to what often precedes symptoms of insanity. Apart from inherited or other causes, a diseased state is often induced by persistence in the 'moderate' use of intoxicants. The malady, when fully developed, is a disease of the higher nerve centres, when the will has become too paralysed to resist the abnormal tendency. The madness is not so much for drink for its own sake as for the fleeting relief it affords. The inebriate generally loathes the taste and smell of the drink which he is powerless to

withstand. The nervous disease of inebriety may exist without a single drunken outburst. Just as insane violence is not the disease of insanity, so drunken indulgence is not the disease of narcomania. The varieties of narcomania are numerous, the most common form being alcoholic. The less-highly rectified spirits of the European Continent contain more fusel oil than our British spirits, and in consequence are even more injurious than our own. Consequently delirium tremens across the English Channel is more fatal than with us. Dr. Kerr referred to the drinking of methylated spirits, and to ginger and capsicum inebriety. It is a grave mistake to suppose the alcoholic was the only form of inebriety. The serfs of opium were sometimes in even a more pitiable plight, for the opium drunkard is much less curable than the alcohol inebriate. The broad fact remains that both alcohol and opium are deadly poisons, inimical to the best interests of humanity unless taken as purely medicinal remedies under skilled advice. Other forms of inebriety include ether, chloral, chloroform, and the recently discovered cocaine. The foregoing and other allied forms of the disease may exhibit general forms of periodicity or continuity. The periodic outbreaks may be regular or irregular, due to a variety of causes; the symptoms are often so marked as to indicate a disorder of function. The habitual form of inebriety presents a more confirmed phase of this dread malady. The transition stage from acute to chronic inebriety is very deceptive, and the victim may for a time think himself never stronger or healthier; but he is on the brink of a precipice, with lessened capacity to walk along the edge. The predisposing and exciting causes of inebriety are many. The former may relate to sex, age, religion, race, climate, education, pecuniary circumstances, occupation, marriage, diet, intoxicants, &c. The latter includes nerve shock, the most prevalent exciting cause, besides domestic trouble, loss or accession of wealth, extreme grief or joy. Traumatic inebriety—the result of accident or violence—is

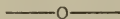
also very common. Dyspepsia, rheumatism, gout, heart disease, syphilis, epilepsy, and insanity, often excite the predisposed to a drunken outbreak. Among the other excitants to inebriety are hysteria; crises of sex, the influence of such callings as those of medical men, auctioneers, daily newspaper service; idleness and overstraining; intellectual over-pressure; and nerve-tire. Alcohol is so powerful an excitant that a very small dose of fermented wine, or beer, or spirit, administered medicinally, and the mere sip of fermented wine at the Sacrament, have been known to excite to a paroxysm of inebriety. The first principle of treatment should be the entire and immediate discontinuance of alcohol, and the gradual discontinuance of opium. The physical damage wrought by the poison should, if possible, be repaired, and the moral tone cultivated and raised. With some inebriates there is enough will power left to enable them with the aid of temperance and other agencies to resist temptation; but those whose higher nerve-centres have been seriously damaged, who are really narcomaniacs, need a prolonged sojourn in a genuine Home under scientific treatment. The law has done some little; but there is an urgent need of legislation for the involuntary detention of narcomaniacs whether rich or poor. The present legislative treatment is wasteful and unjust. The drunkard is simply imprisoned long enough for him to recover from the effects of a debauch, and more fitted to indulge in excess. The real punishment falls on the wife or children. The community needs to comprehend the relations of the disease of inebriety to the temperance movement. When the physical as well as the moral and religious aspects of intemperance are realised, the temperance movement will take a great stride forward; reformation, not penal procedure, kindness and not vengeance, will then breathe through our legalised dealing with the sick inebriate, and the Church will clear herself from complicity with the temptation to the rescued by banishing intoxicating wines from her pre-

cincts; and the State, recognising that prevention is better than cure, will then invest the people with power to root out so deadly a centre of danger and reproach to our country and race.

Dr. RINGROSE ATKINS, M.A., of Waterford, sent a paper which was read by Mr. J. J. Ritchie, M.R.C.S., of Leek, on "the Morbid Histology of the Nervous System in Chronic Alcoholism," and accompanied it with some photo-micrographic illustrations which proved to be of considerable interest. Dr. Atkins believed it was now universally admitted that the excessive and long-continued use of alcohol produced demonstrable structural changes, though differences of opinion might exist as to the manner in which it brought about such changes. It was unquestionably the case that grave disturbances of function occurred as the result of intemperance which apparently left no remnants in the shape of pathological findings, but that this was so could not be taken as evidence that alcohol was incapable of producing appreciable changes in structure. As was the case with many other poisons some were more capable of resisting the effects of alcohol than others, but in the great majority of cases this was not so, and destructive changes were produced which might be so complicated with others from different causes as to render it difficult to determine what was cause and what effect. Syphilitic conditions of the nervous system were frequently characterised by changes of which a similar kind were met with in chronic alcoholism. Similar conditions were also found in hydrophobia as in alcoholism. Dr. Atkins had had an opportunity of demonstrating the histological changes in the brain structures in an uncomplicated case of persistent intemperance eventuating, after several acute attacks of delirium tremens, in melancholia, passing rapidly into dementia, epileptic convulsions, and death. The patient, a healthy man, thirty years of age at death, with a good family history, became addicted to the use of alcohol when little more than twenty years of age. He occupied a fair position in life, but no means that could be taken

availed to divert him from the downward course. During the ten years previous to his death he had been almost always in greater or less degree under the influence of alcohol, and had had several severe attacks of acute functional disturbance, from which he recovered. From a condition of acute melancholia, he had rapidly passed into a state of profound dementia, so that he had to be dressed and fed, and seemed quite unconscious of his surroundings. He had been seized with an epileptic fit and in a short time was dead. Having been allowed to examine the brain, Dr. Atkins had been enabled to present photographs demonstrating the changes which had taken place, and showing the presence of nuclei, in some portions aggregated into foci—the result of the long course of per-

sistent intemperance the patient had undergone. In advanced cases where physical and mental breakdown had occurred and progressed downwards, alterations of an atrophic character were found in the motor cells of the spinal cord. This atrophy of cells when present was hardly due to the direct action of alcohol, but rather to the long continued inertia which had supervened in consequence of the physical and mental breakdown. The changes described were much more frequently found in the brains of those who had fallen victims to alcohol, only after long continued excesses, and who had survived to enter upon a living death, than in those who, less resistant, had become acutely affected either physically or mentally.



## DRUNKENNESS AND DIPSOMANIA.

At the Grand Hotel, Birmingham, on Saturday, 16th November, an influential assembly came together by invitation of the President and Council of the Midland Medical Society, for the purpose of hearing an address by Professor W. T. Gairdner, M.D., LL.D., Physician in Ordinary to her Majesty in Scotland, on "Drunkenness and Dipsomania: Medical and Legal Preventives and Remedies." The address was preceded by a conversation, during which the members of the society and their guests examined with much interest some rare exhibits and experiments by Professors Tilden, F.R.S., Poynting, F.R.S., Windle, Lapworth, Hillhouse, and Allen, of Mason College and Queen's College, and by other friends. In addition to Dr. Gairdner and some of the gentlemen already named, there were present the president (Mr. Lawson Tait), Dr. Norman Kerr (London), the Revs. Canon Bowlby and Dr. Gardiner, Drs. Wade, Savage, Malet, F. J. Gray (Walsall), Nicol, Phillips, Saundby, Underhill, Haynes, Suckling, Thurs-

field, Holmes, Wyer, and Totherick, Messrs. Bennett May, Jordon Lloyd, Marsh, Blakeney, &c.

Professor GAIRDNER said that that great lawyer, Sir Edward Coke, who in 1593 occupied the position of Speaker of the House of Commons, but who, in respect of his other numerous offices and large experience, must be considered as by far the most conspicuous embodiment of the legal traditions of the age of Elizabeth and James, transmitted to us a curious expression, which, taken in connection with what we knew from other sources as to the current belief of his time, might perhaps form an authoritative text for the discourse of that evening. A drunkard, according to Coke, was *voluntarius dæmon*—a voluntary demon, *i.e.*, a man possessed, dominated, by an evil spirit not his own, but whom he chose of his own accord to invite into possession; whereupon followed, as a strictly legal consequence, that while the fact of possession, or, as we should say, of insanity, was admitted by implication, the privilege attaching to



the fact was set aside; for, he added, "the drunkard hath no privilege thereby, but what hurt or ill soever he doeth, his drunkenness doth aggravate it." This conclusion was equally affirmed by Coke's great rival, Lord Bacon, who said, "If a madman commit a felony he shall not lose his life for it, because his infirmity came by the act of God; but if a drunken man commit a felony he shall not be excused, because his imperfection came by his own default." In Plowden's Commentaries a similar idea was clearly expressed, and was referred back to Aristotle; and Sir Matthew Hale, in his "History of the Pleas of the Crown," gave a well-reasoned view of the matter as it was understood in his day, in the middle of the seventeenth century: "A third sort of dementia is that which is *dementia affectatur*—viz., drunkenness. This vice doth deprive men of the use of reason and put many men into a perfect but temporary phrenzy; and, therefore, according to some civilians, such a person committing homicide shall not be punished simply for the crime of homicide, but shall suffer for his drunkenness answerably to the nature of the crime occasioned thereby, so that yet the formal cause of his punishment is rather the drunkenness than the crime committed in it; but by the laws of England, such a person shall have no privilege by this voluntarily contracted madness, but shall have the same judgment as if he were in his right senses. But yet there seem to be two allays to be allowed in this case—first, that if a person, by the unskilfulness of his physician, or the contrivance of his enemies, eat or drink such things as cause a temporary phrenzy, this puts him in the same condition in reference to crimes as any other phrenzy, and equally excuses him; second, that although the simplex phrenzy occasioned immediately by drunkenness excuse not any criminal, yet if, by one or more such practices, an habitual or fixed phrenzy be caused, though this madness was contracted by the vice and will of the party, yet this habitual and fixed phrenzy thereby caused puts a man in

the same condition in relation to crimes as if the same were contracted involuntarily first." Hulme, in stating the law of Scotland on the subject, observed that this "wilful distemper" was no excuse for crime, because "how are the different degrees of ebriety to be distinguished, or the real ebriety be known from that which is affected? Or what protection could we have, if this (the validity of the excuse) were law, against the attempts of such as might inflame themselves with liquor on purpose to gain courage to indulge their malice and an opportunity to do it safely? Besides, if there were no risk of such contrivance, it is indispensable to guard the safety of the decent and peaceable part of the community, who would otherwise be at the discretion of the dissolute and worthless." Lord Deas, however, while agreeing that even delirium tremens, when it did not amount legally to insanity, formed no excuse for crime, had in two cases established a precedent in favour of reducing the quality of the offence from murder to culpable homicide. One case, which occurred in 1867, was that of an Aberdeenshire proprietor habitually and irreclaimably addicted to drunkenness, who caused the death of his wife by stabbing her with a carving knife, admittedly on very slight provocation, he being fond of and good to her when not drunk. The defence was that at the time of the act the prisoner was insane. The habit of constant drinking to excess, carried on for more than twenty years, had not, indeed, produced well-marked insanity, but only such an amount of weakness of mind as was apparent to several witnesses. There was also the tradition of a sunstroke in India, and of something approximating to epileptic fits after his return. The homicidal act was committed after taking liquors, but not when obviously drunk, and was probably provoked by the deceased having hidden a pint bottle of whisky and some money. Evidence as to the existence of positive insanity in a grand-uncle and two aunts was excluded as inadmissible in law. Lord Deas's opinion was plainly

that the evidence admitted did not come up to what was insanity in point of law, but he held that the state of mind of the accused, as affected by habitual drunkenness, might be an element for the consideration of the jury in deciding the question between murder and culpable homicide. The second case, that of Her Majesty's Advocate *v.* Andrew Granger, was even a more striking one as showing the severity of the law. Admittedly it was a case of pure delirium tremens, with suspicious delusions, leading directly to homicide under the influence of the mania of suspicion. Lord Deas held that the man, if he knew he was committing a crime at all, must be held responsible; but that aberration of mind, not amounting to insanity, might legitimately form an element in the question between murder and culpable homicide. Here, the lecturer confessed, his medical instincts wholly revolted from the position Lord Deas attributed to the law. If the mania of suspicion arising from pure delirium tremens was not to be construed as insanity, he did not know any other kind of mania, and especially of transitory mania, witnessed in asylums or elsewhere, which was capable of so being construed. He believed it was the opinion of almost the entire medical profession that the intricate questions connected with the responsibility of the drunkard for crime could not be adequately dealt with under the present state of the law; but he proposed now to confine himself to the question of prevention as aided by legal restraints, premising that he was not one of those who, by looking upon inebriety entirely as a disease, would practically annihilate or very much minimise the sense of responsibility in a drunkard. It had always appeared to him a mere waste of time to discuss how far drunkenness was a disease and how far a vice. In the great majority of cases it was both the one and the other—a vice, for it consisted in yielding to a temptation which ought to be resisted, and which the drunkard, of all men, best knew ought to be resisted; a disease, because the alterations of function and of struc-

ture that followed the use of alcohol to excess amounted to well-marked organic changes in every part of the body, and notably, in bad cases, to a physical decay, affecting both body and mind. He was, therefore, not at all disposed to recoil from the application of Coke's principle that a drunkard, speaking generally, was *voluntarius daemon*, and, therefore, punishable; but just because the stern necessity of maintaining the law as an avenger to execute wrath compelled us to give effect to the voluntary element, and consider it, with Hale, as a *dementia affectatur*, we might hold that in proportion as this voluntary element was subverted and gradually withdrawn under the influence of long-continued indulgence, the protection of the law ought to be thrown around the victims of this frightful tyranny. It was not at all necessary that in advocating a preventive treatment of the habitual drunkard we should close our eyes to the fact that he was in most or all cases responsible in some degree for his own wretchedness and degradation. What medical men maintained was that the failure of our existing system demonstrated, as their experience confirmed, that the habitual drunkard was not only a slave to his vice, or rather to the subtle and long-continued workings of that "invisible spirit of wine," of that "enemy" put into men's "mouths, to steal away their brains," which Shakespeare, no less than Sir Edward Coke, recognised as a kind of demoniac possession, but was, as matters stood at present, usually also an utterly irreclaimable drunkard. That fact had been so often attested by men of the largest experience and of the most widely different schools, that it might be discussed quite apart from the more or less technical question whether and how far such an irreclaimable drunkard was to be considered as insane. In the report of the Committee on Habitual Drunkards presented to the House of Commons in 1872, the subject was, in fact, so discussed, and the unanimous opinion alike of the numerous skilled witnesses and of the members of the Committee was stated in the following weighty sentences:—"That there is

entire concurrence of all the witnesses in the absolute inadequacy of existing laws to check drunkenness, whether casual or otherwise, rendering it desirable that fresh legislation on the subject should take place, and that the laws should be made more simple, uniform, and stringent. That small fines and short imprisonments are proved to be useless, as well by the testimony of competent witnesses as by the fact that the same individual is convicted over and over again, to even more than 100 times. That occasional drunkenness may, and very frequently does, become confirmed and habitual, and soon passes into the condition of a disease, uncontrollable by the individual, unless, indeed, some extraneous influence, either punitive or curative be brought into play. That self-control is suspended or annihilated, moral obligations are disregarded, the decencies of public and private life alike set at naught, and individuals obey an overwhelming craving for stimulants to which everything is sacrificed. That the absence of all power to check the downward career of a drunkard has been dwelt upon by every witness, and the legal control of drunkards, either in reformatory or a private dwelling, is recommended in the belief that many cases of death resulting from drunkenness, including suicides and homicides, may thus be prevented." Since then a provision had been grudgingly introduced into one of the Lunacy Acts by which an inebriate might voluntarily apply to a lunatic asylum for treatment; but whether an habitual drunkard was insane or not, to ask him to declare himself to be, so was practically to court defeat. Of the labours of the Parliamentary Committee everyone must feel a high appreciation. Composed of a group of legislators fairly representative of John Bull himself, and not less disposed than he to value that glorious palladium, "the liberty of the subject," it yet, being confronted with the facts, found no difficulty in concluding that to speak of "liberty" in connection with uncontrollable drunkenness was in very serious earnest a total abuse of the

word. On the lines of its report legislation, if it was to do any good, must ultimately proceed, though up to the present time John Bull might be said to have set up his back, and to hold the field against all comers for this "liberty of the subject." Dr. Cameron's Act at least provided a machinery on which a more efficient legislative measure might be founded; and in Scotland Mr. Charles Morton, of Edinburgh, who formerly held under several Governments the important post of Crown Agent, had drafted a Bill to be called the Restorative Home (Scotland) Act, which had been brought to the attention of the Government, who let it be understood that they were engaged upon a Bill of their own on the subject. In any case it seemed to him that, with respect to the habitual drunkard, legislation was undergoing just the same course as legislation for the otherwise insane had undergone. When we perceived that insane persons were possessed by demons, we put them out of the pale of humanity, hid them away in dungeons and maltreated them. As soon as we became convinced that they were human beings like ourselves, touched by the same sympathies and emotions, and led astray only by faults of their organisation, we altered our treatment. Everybody knew what had been the result, and if we applied to the habitual drunkard the same methods in science as we applied to the insane, at once taking the power over them that society required and giving them the kindness that humanity suggested, the result would be no less manifest and no less approved.

The PRESIDENT, in opening the discussion, said he thought that the difficulty in the way of further legislation was not a false idea of "the liberty of the subject" so much as a fear of new places being made for medical men.

Dr. WADE moved a vote of thanks to the lecturer, and it was seconded by the Rev. Dr. GARDINER, who said that he saw no remedy for confirmed drunkenness but that which had been suggested in the paper.

Dr. NORMAN KERR said that a few



years ago Judge Day ruled that, no matter what be the cause of the insanity, if a man be temporarily out of his mind that man was irresponsible. Other decisions in a like spirit had lately been made. But he did not welcome them, because they lightened the punishment of the accused; light punishment was not cure. They only strengthened, to his mind, the logical necessity for compulsory and rational treatment of drunkards. He did not believe there was any human drunkard irreclaimable. But the larger his experience grew, and the more he could find out of the history of cases, the fewer became the cases in which he did not trace a disease element in past stages. They were only at the beginning of this subject, and it was for them not to propound theories, but to accumulate facts.

Dr. SAUNDBY thought there was no pathological tendency which made a man go and drink alcohol for the first time, and predicted great difficulty in framing an acceptable definition of the "habitual drunkard."

Dr. GRAY, having conducted for thirteen years a Home for inebriates under the Habitual Drunkards Acts, testified that he had had clergymen, medical men, lawyers, and people of all other ranks of society in his care, and that after twelve months' detention many of them were still, after seven or eight years, sober men. Some of these for months after their entrance to the home were unable to find a door in the house or to recollect for ten minutes what had been said or what they had said; and were nine or ten months in getting back to a complete state of health. He heard general complaints, however, especially in respect to female drunkards, that it was utterly impossible in their depraved condition to get them to sign a consent to enter the home; and most

patients, when they did so, were under strong pressure from their friends.

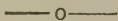
The Rev. Canon BOWLBY recalled Aristotle's distinction between actions committed by a man *ágnoon* (in a state of ignorance), and *di' ágnoiàn* (owing to ignorance). The difference lay between actions due to ignorance which a man had brought upon himself by lack of the opportunities of knowledge, and actions the consequences of which a man had had no opportunity of measuring. As to the state of the law he agreed very closely with Dr. Norman Kerr. Every man who was through drunkenness likely to commit actions dangerous to society ought, for his own sake and for the sake of the community, to be subjected to compulsory detention. The difficulty of definition did not seem to him formidable, if the matter were left in the hands of thoroughly competent medical men.

Dr. WADE asked leave to add to his motion as follows:—"That this meeting is strongly in favour of further legislation in the direction of compulsory provisions for the detention and treatment of well-defined cases of habitual inebriety, in the interest of the individual and of the community at large."

With the consent of the seconder, the resolution as amended was carried unanimously.

In reply, Dr. GAIRDNER said he believed definition to be impossible. Where an habitual drunkard ends, and an insane man begins, no one, he thought, could tell. But the matter depended not on that, but on the practical ascertainment of whether a man was uncontrollable or not.

The members and guests afterwards took supper together, the table being spread in honour of the lecturer.—*Birmingham Daily Post*.



THE GERMAN MEDICAL ASSOCIATION has just declared that "the continuous use of spirits is evidence of the mental incapacity of the persons using it."

## ALCOHOL IN DISGUISE.

AN analysis of absinthe just given by a medical journal, though of wide general interest, deals chiefly with the physiological effects of the various herbal components of the liqueur. These include absinthium—which is, of course, wormwood—and the essences of two varieties of aniseed, of coriander, fennel, peppermint, angelica, hyssop, and mélisse; most of which are, *inter alia*, very powerful excitants of the nerve centres. It is probable that either of them may become specially injurious under particular conditions of mind or body; and it is certain that their habitual use in combination must tend to a general disturbance of the nervous system, more or less dangerous according to the quantity consumed. But, while admitting the value of the information thus given respecting these powerful essences, it should not be forgotten that alcohol, and probably alcohol of a very degraded kind, is their common “vehicle.” Doubtless its various compounds give a special direction to the intoxication produced by absinthe; but, the alcohol lacking, their effects would not be classed under the head of “drunkenness.” To be intoxicated with absinthe, therefore, is to be intoxicated with alcohol; admittedly, with specific manifestations. This idea may be usefully expanded a little in other directions.

A recent authoritative comparison of the alcoholic strength of the several liqueurs named give the following results:—

Name.	Per cent. of Alcohol.
Carmelite ... ..	93
Swiss Absinthe ... ..	70
Green Chartreuse... ..	62
White do. ... ..	43
Rum (liqueur) ... ..	53
Kümmel ... ..	40
Benedictine ... ..	34
Danzig Goldwasser ... ..	32
Curaçao ... ..	32 to 51
Maraschino ... ..	30
Eau de Cologne (pure) ... ..	85

The class of compounds known as “tonics,” or “bitters,” are perhaps chiefly used in America, though their consumption among ourselves is quite sufficient to give cogency to an analytical report lately issued by the Massachusetts Board of Health. Of forty-seven samples examined, forty-six contained an alcoholic average of more than 21 per cent. One compound, described as a purely vegetable extract, “a stimulus to the body without intoxicating,” disclosed over 41 per cent. of alcohol. Certain “sulphur bitters,” advertised to contain no alcohol, really contained no sulphur, but more than 20 per cent. of alcohol. One maker’s “sherry-wine bitters” yielded fully 47 per cent. of alcohol; while the “stomach bitters” of two others showed severally 42 and 43 per cent. Nearly the whole of these deleterious stuffs are sold as “non-alcoholic,” while several of them are recommended as “soothing inducements to temperance,” in doses of a wineglassful three “or more” times a day.

The “fortification” of wines has led by easy descent to their absolute fabrication. Many cheap so-called wines—making special appeal to the poorer classes of invalids, in the form of “luscious sherry” and “strengthening port”—are but clever chemical combinations, with, of course, the all-pervading alcoholic base. For it may be taken as an axiom that, though “wine” may be made without grapes, it cannot be made without alcohol. Probably the Spanish “health wines” are among the chief offenders in this sort; and to such a point has their falsification been carried that, no long time since, the Ministry of Public Works in Madrid ordered twenty chemical laboratories to be erected in as many of the chief wine-producing districts of Spain.

The examples in the several classes mentioned—no doubt with the classes themselves—might be greatly extended. But enough has been adduced for our purpose. We see that these

commodities could not exist without alcohol—not the alcohol naturally developed in their preparation, but that applied to conceal its character. What description of alcohol, therefore, is this likely to be? It has been remarked that the drunkenness of fifty years ago was “good-naturedness” itself compared with the too-often brutal and frenzied outbreaks of to-day; and the distinction is a truly scientific one. Too well we know the horrible stuff that is accepted with unfortunate good faith by the lower orders of dram-drinkers. But if the concocters of “cheap spirits” are able to disguise the distasteful and injurious products of crude distillation and to offer their patrons the gin, whisky, or brandy of their desires, as such, with how much greater facility can they proceed when the masterful flavourers indicated (with a hundred others) form a part of the disguise? Brandy, labelled “Cognac,” is daily produced from potato and beet-root. It would be interesting to know with what kind of alcoholic “warp” the epicure is occasionally favoured whose “woof” is composed of many of the dominating essential oils and syrups of the pharmacopœia.—*St. James's Gazette.*

Thanks to the folly of mankind, the position of alcohol as a mischief-worker and destroyer of health is at least as eminent as that which belongs to it in virtue of its right and judicious use. We do not need to remind our readers that it has for long wrought probably more for evil than for good, under other names than those under which we in this country recognise its familiar combinations. Under a variety of titles it exerts its influence as a potent body of the various liqueurs so common on the Continent. These contain, it is true, other ingredients of more or less stimulant character, but they owe their highly intoxicant qualities without doubt to the presence of a large percentage of alcohol. A fact which is not so generally known has, however, been brought to light in some recent returns, which prove that such apparently harmless compounds as “bitters” and “tonics” are also com-

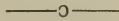
monly alcoholic in a high degree. Samples examined have revealed the presence of alcohol to an amount varying from 20 per cent. to over 40 per cent. Of the legion of adulterations more or less poisonous which have been from time to time introduced into intoxicating beverages our space will not permit us to speak. It is probable that in this case the real stimulant is often the lesser evil. In the presence of such evidence as this, there can be no question that the machinery of official inspection must be made to work with considerably greater nicety than hitherto, if even one desirable end—the purity of known intoxicants—is to be assured. A somewhat simpler task, though till recently but little suspected, also presents itself to them, and to the too-confiding public—this is the detection and exposure of the fraud implied in selling strongly-intoxicant “non-alcoholic bitter tonics.”—*Lancet.*

The liqueur for which our French neighbours exhibit such a partiality, has been so heartily abused that purely scientific appreciations are very welcome to confirm or disprove the accusations levelled against this agreeable but treacherous beverage. As commonly met with it only contains about thirty minims of essence of absinthe to the litre, the remainder consisting of alcohol together with from sixteen to a hundred drops each of the essences of aniseed and star aniseed, coriander, fennel, peppermint, angelica, hyssop, and mélisse, and the colour is given by fresh parsley or nettles. MM. Cadiac and Meumer recently undertook to investigate the action of the various components of the liqueur in order to ascertain to which of them its peculiarly intoxicating effects were due. They found that hyssop induces epileptiform attacks in ten-grain doses, while fennel induces visual troubles and languor. Poisonous doses of coriander give rise to a sudden anæsthesia and muscular convulsions. Mélisse determines a passing stimulation, followed by lassitude and sleepiness. Both varieties of aniseed possess powerfully stimulating proper-



ties, with consecutive visual troubles, muscular inco-ordination and dulness of sensation, with abrogation of the will and heavy sleep. Although not strictly speaking poisonous, aniseed is a violent excitant of the nerve centres, even in the relatively small quantities contained in the usual allowance of the liqueur. If the dose be increased, epileptiform attacks are induced. A litre of ordinary absinthe only contains about thirty drops of the essence, a dose which, if taken all at once, only gives rise to powerful mental stimulation, increasing the appe-

tite and facilitating digestion. Moreover, it leaves behind it neither depression nor somnolence. The sum total of the effects of the blend is a sensation of comfort and physical and mental activity, followed by lassitude and indisposition to exertion, and in large doses to epileptiform attacks. The authors are disposed to attribute the major part of the injurious effects to the collateral essences, and seriously recommend manufacturers to discard the use of several of these, and of aniseed in particular.—*Medical Press*.



#### NATIONAL VICES AND MEDICAL RESPONSIBILITY.

THE Archbishop of Canterbury has done well to devote his chief attention in his recent series of charges to the consideration of the Church's duty in respect of the two great national sins, intemperance and impurity. We have seen with satisfaction that the Nonconformist branches of the Church have been doing the same. The Church never appears to greater advantage than when helping men and women in the struggle with besetting sins, although sometimes it spends itself in petty questions which men feel to have no relation to their present life or any other. It is amazing how much swing such sins have in a Christian country, and even in its most religious parts. Nobody will doubt the religiousness of Scotland. No country has made greater sacrifices for her religion; no Church has had greater ministers than the Church of Scotland has had in such men as Chalmers, Macleod, Cairns; but the reign of whisky is still unbroken, as it is in the equally religious country of Ireland. The Archbishop says that the evil of impurity is too strong for science, and quotes the grave and almost despairing words of the President of the British Medical Association as to the plague spot that "saps the health of millions." These evils are so dominant

as to make both divines and men of science humble. Neither those who are supposed to be the ministers of the soul nor those whose special care is the body can afford to reproach each other. We, as medical men, certainly have tremendous responsibilities in regard to the prevalence of both sins. We see every day the consequences of them. Often we are consulted about them by those who are in a state to receive not only medical but moral and friendly advice, and woe betide the physician or the surgeon who fails in his duty at such supreme moments of opportunity. The medical man who minifies vice in a patient, or who seems to sanction it, prostitutes his office and misleads his patient. He is like a pilot who takes his helpless ship into a tempestuous sea when he might have chosen still waters. We have lately quoted the opinion of Sir James Paget and Dr. Gowers as to the safety of chastity and the physician's duty in regard to all breaches of it, actual or proposed. Their deliverances are practically unchallenged. If there are other and opposing voices in the profession they are ashamed to speak out. From the mere physical standpoint unchastity is fatal. We speak of its tendency, not of individual cases. If anyone doubts

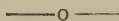
this let him read the account given in our Paris correspondent's letters of the inheritance of syphilis, in the *Lancet*, of 20th of July, and 3rd and 17th of August. The authority is no less a one than Professor Fournier, who has not drifted into the fashion of speaking lightly of syphilis and its consequences as if it were a declining evil. It is to him "a veritable social calamity," "a factor in depopulation," "it has an enormous mortality following in its train," "it is a disease which affects the whole being, which by the general reaction it exercises on the organism, is capable of exciting, side by side with the symptoms or manifestations proper, others of another order, no longer syphilitic in the ordinary sense, although indirectly derived from syphilis, and which he proposes to term *parasymphilitic*." These are the words not of an English physician, who may be supposed to have puritanical prejudices, but of a French syphilographer, who looks on social questions and on this great social plague with an experience probably not exceeded. Evidently in his case familiarity has bred no contempt of a disease which every man who abandons the lines of morality should be prepared to accept for himself and for his posterity. Neither must it be supposed that coarse or subtle physical disease is the only evil and retribution of unchastity. It is a misdirection altogether. It is giving up the mastery and regulation of the system, on which not health alone, but conduct and character, all depend. Admitted that the passion in question is an imperious one, it is still meant to be subordinate to reason, circumstance, and religion. We are not beasts, but social and rational beings. The sexual passion in man cannot be wantonly exercised without disturbing his whole nature and subordinating that which should be uppermost. There is much the same difference between the capricious, sensual, impulsive use of this function and its regulated recognition in marriage as there is between St. Vitus's dance and regular muscular exercise; and the medical man who advises or

connives at the former must have an uneasy sense of responsibility if his patient becomes irregular in other respects. But we must insist that if any such medical men exist, they do not represent either the science or the ethics of medicine.

The vice of intemperance was discussed with great care by the Archbishop. He spoke with much caution on legislative enactments for its abatement. One of the best things the Archbishop said was that to make a political contest out of such a question would be bad both for politics and morals. It is one of the evils of our present constitutional system that such an urgent question cannot be discussed apart from political grounds and tactics. He quoted the saying of the Lord Chief Justice, that scarcely a crime came before him which was not directly or indirectly caused by strong drink. The Primate saw nothing inconsistent with this in admitting that the criminal had rarely had a good start; he inherits too often a vicious constitution, and is born into a criminal atmosphere. Apart from the intemperance that leads to crime, there is the great mass of intemperance that leads to poverty, and a less degree still that yet leads to various forms of ill-health. The responsibility of the medical profession is perhaps greater here than in the case of the first vice we have noticed. Undoubtedly some medical men too lightly prescribe alcoholic stimulants for their patients. And it is equally certain that the prescription is used as an excuse for taking the stimulants long after the necessity for them has passed away, and when all other parts of the physician's prescription have ceased to be remembered or regarded. Further, it is only fair to medical men to say that the most distinguished members of the profession have given a new meaning to intemperance, and have shown that quantities which a few years ago were considered moderate are fruitful sources of ailment and even of disease, and that the leaders of the profession at least are conspicuous for their moderation. Still, we cannot fail to see that by our pre-

scriptions and by our example we may mightily help or hinder improvement in the national habits in this respect. We are probably the most gouty nation under the sun, and for nineteen centuries at least we have been drinking freely. It is time to reconsider our habits. A little more sobriety will certainly not be inconsistent with our national virtues, and it will im-

mensely reduce poverty, misery, and disease. The clergy are siding most creditably with the promoters of temperance. So should medical men, not intemperately, but by caution in prescription, the condemnation of all casual drinking without food, and by the utmost care in personal habits.—*Lancet*, Nov. 2.



## LEGISLATION FOR INEBRIATES AT HOME AND ABROAD.

It is satisfactory to learn from the ninth annual report of the inspector under the Inebriates Acts that there has been an increase of 50 per cent. in the number of admissions to the seven retreats licensed for the treatment of inebriety. The admissions during the year amounted to ninety-nine. As the proportion of inmates not under the Acts is, speaking generally, one-half, there have been some 200 patients under treatment. In various unlicensed Homes there have been at least 200 more, so that no fewer than 400 inebriates have in the course of the past twelve months been resident in special institutions established professedly for the cure of this disease. There are, however, at the lowest computation more than double that number who ought also to be undergoing therapeutic care. Though this provision is much more ample than it was only a few years ago, the large number of inebriates at present neither under control nor curative influences calls for extended accommodation. As the Inebriates Acts are now permanent, there is much more encouragement for the outlay of capital than when there was only a measure expiring during the present year. The two licensed retreats with a disinterested proprietary are the Dalrymple Home for gentlemen, at Rickmansworth, and St. Veronica's Retreat, at Chiswick, for Roman Catholic females. The proportion of cures in both these retreats has been considerable. The reports from the licensees of the other retreats

are generally favourable, and they all unite in the expression of the opinion that their work would be rendered greatly more valuable by empowering the proper authorities to compulsorily place in residence inebriates whose will-power has been so paralysed that they are unable to apply voluntarily for admission. The inspector reports that the amendments embodied in the recent Act of 1888 have contributed to the efficient working of our existing legislation. This official recognition of the value of proposals pressed on the Home Secretary by the Inebriates Legislation Committee ought to be peculiarly gratifying to the members of the Association. Germany and Norway have now Homes for the treatment of inebriate addiction, and in the former country it is anticipated that Parliament will pass a Bill dealing with this subject comprehensively, including compulsory clauses. In France these views have been adopted at several recent congresses, the International Congress on Alcoholism especially formulating thorough-going legislation for accidental and pathological as well as for chronic alcoholics. This congress recommended a medico-legal inquiry in criminal cases complicated with alcoholism, and the detention in a State hospital for purposes of cure, instead of a penal term in a gaol, of the accused who is held to have been irresponsible from the offence having been committed whilst the offender was under the influence of alcohol.—*British Medical Journal*.



# British Medical Temperance Association.

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*President.*

DR. B. W. RICHARDSON, F.R.S.

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## CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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Members are requested to send their annual subscriptions.

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## STUDENTS' PRIZES.

The Council has arranged to hold an examination of Medical Students in their third year on Tuesday, January 28, 1890. The examination will be held simultaneously in London, Edinburgh, Glasgow, and Belfast. The subject is, "Alcohol and its Action on the Body." The Council believes that this is a most effectual means of directing the attention of students to the subject; but as the ordinary funds of the Association will not bear this expenditure, *special subscriptions* are solicited for this important object.

## SUBSCRIPTIONS RECEIVED DURING SEPTEMBER, OCTOBER AND NOVEMBER.

*Twelve Shillings and Sixpence.*—R. Turner, Esq.*Ten Shillings and Sixpence.*—H. O. Thomas, Esq.*Ten Shillings.*—Dr. Hansard; Surgeon-Major Robinson; H. Dixon, Esq.; T. H. Bewley, Esq.; C. Joynt, Esq.; Dr. Cosgrave.*Five Shillings.*—W. F. Hazel, Esq.; Dr. Blair; Dr. Gauld; Dr. O'Gorman; Dr. Rawlings; Dr. Jones; Dr. Lord; Dr. Moon; Dr. Edwards; Dr. J. Johnston; Dr. Eustace; Dr. McQuaid; Dr. A. Atock; Dr. Ringrose Atkins; Dr. S. M. Thompson; Dr. Heard; Dr. J. W. Boyce; Dr. Murray; Dr. H. M. Lawson; Dr. Arthur; Dr. McDonald.*Two Shillings and Sixpence.*—Messrs. Gardener, Sewaki, and Norway.*Two Shillings (Ireland).*—Messrs. P. Kelly and Callaghan.*One Shilling (Ireland).*—Messrs. Eustace, Kennedy, and Caulter.J. J. RIDGE, *Hon. Sec.*

Enfield, December, 1889.

## THE WINTER GENERAL MEETING.

A GENERAL meeting of the members of the Association was held in the Rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, on Tuesday, 26th November, Dr. B. W. Richardson (the President) in the chair.

THE PRESIDENT, in opening the proceedings, said he would like to make one or two observations regarding the reissue of the statement from the *Revue Scientifique* with reference to the mortality of total abstinens. The statement itself was drawn up some fourteen or fifteen months ago, and was very ably answered at that time by Dr. Ridge, Dr. Dawson Burns, and many others. Since its publication

he had been literally deluged with correspondence on the subject; in fact, he had received over 100 letters containing various questions, and some applications of a personal character had been extremely painful to him; because the effect of the statement going the rounds of the newspapers, with the comments thereon, had had a very injurious tendency upon the public mind, especially on the minds of people who were themselves in doubt whether they should or should not give up strong drink, and on those who had been inebriated and had since become more or less reformed. To his knowledge the statement had had the effect of absolutely turning a man

round from what might be called absolute safety from strong drink back to his old habits of intemperance. Now, he wished to trace the matter to its root, and to inquire as to its validity and value. He wanted to know, quite apart from any comparisons that might be made between this set of figures and others which had been adduced on the temperance side, the exact basis of the figures themselves. They were told that there were 13,000 members in the British Medical Association, out of which number 178 made reports to a committee of inquiry with reference to 4,234 cases of deaths of different individuals which were classified under different heads, viz., total abstainers, habitually temperate, careless drinkers, free drinkers, and habitually intemperate. The 4,234 deaths were calculated upon as belonging to one or other of these classes, and the 178 reports gave the age of the persons who died. It was supposed that by this means they would be able to ascertain what effect the taking of alcoholic liquors had upon the mortality. He wanted to get at the root of the matter in this way. What was the nature of the evidence on which these 178 gentlemen classified the different individuals who died? The facts must have been got from one of these sources—(1) from most accurate clinical records; (2) from memory; or from the medical certificate-book. Was it probable, he asked, that these cases were taken from accurate clinical records, such, for instance, as an honest surgeon would give in enumerating the results of a series of operations? He doubted altogether whether any such record was kept, because this was not a premeditated thing. He could have understood it if six years ago this committee had said they were going to make inquiries which they would want at a certain time, and had been on the watch all through that period. In this way they might have had a good reliable record. But in the present case they might throw overboard the idea that there was any such record kept. It had been suggested that the 178 recorders trusted to their memories. He did

not believe that these gentlemen could from memory record what was contained in their reports. Medical men in full practice had so many things to remember that they could not recall details. He now came to the statement that they were got from the medical certificate book. He remembered the first medical certificate book coming out, and he had been familiar with them ever since. He never yet saw any table where he could mark down whether a person belonged to one or other of the classes mentioned, and he was sure that no such record was ever given in. From the very foundation, therefore, he dismissed the statement as of no real value. It was not of such a character as would entitle them to place the slightest confidence in it, and he did not think the public ought to have such loose evidence put before them. To his mind the figures were rotten from the bottom. But supposing they could practically define all these classes, he wanted to know by what rule that definition took place. For instance, by what rule were careless drinkers distinguished from free drinkers? Personally he did not know the distinction. Neither could he see the distinction between the other classes. He did not know whether the line could be drawn with any accuracy whatever. The whole thing was altogether out of place, and it was their business, he thought, as a medical society, to show that it was perfectly unreliable as a matter of argument. But supposing facts were defined, there was no argument before them, because the numbers which were brought forward were altogether out of proportion; out of the 4,234 cases, 122, or 2·8 per cent., were returned as abstainers, whilst moderate drinkers formed 36 per cent. The division of classes was an absolute absurdity. Nothing could be got from it that anybody could rely upon. On all the points he had mentioned he challenged the figures. Dr. Ridge had very carefully gone into the matter with regard to comparisons, and so had Dr. Dawson Burns, and the secretary of the Alliance. They wanted to go further, and say that these figures



were wrong from the bottom, and apart from comparison were absolutely worthless. Dr. Owen, ever since the publication of the statistics, had been trying to apologise. He said he never meant such conclusions to be drawn from them. When a committee published figures of this kind, and felt obliged at every turn to apologise for them, he maintained that they ought never to have been published at all. It was altogether wrong, because whatever the figures meant there was a false deduction to be drawn by the public at large. He therefore maintained that though an apology might somewhat modify the figures it could never excuse them; and they were shamefully hurtful as bearing on the best and most vital interests of mankind.

Dr. NORMAN KERR said the whole thing was a mistake from beginning to end. It was a perfect absurdity to suppose that men could take their certificate books of death three years back and classify the deaths under the various titles which had been enumerated. It seemed to him that the thing was an utter absurdity on the face of it, and he was sure everyone would agree with the President, that it was a great mistake to publish them at all. The unfortunate thing was that the committee had never asked anyone who had been engaged in this work before to assist in the matter. To his knowledge there had been a syndicate engaged in paying people to publish this particular table, and they did not care a straw for explanations from anybody. It seemed to him that the only thing they could do was to take such opportunities as the present to show the utter fallacy of founding any conclusions on these statistics. He thought the best thing the British Medical Association could do would be to ask medical men on and after a certain date—say from 1892 for three years running—to note certain particulars of every death, and then get the returns and publish them, if it was found that it could be done without unreasonable deductions being gathered from them.

Dr. LORD said that as a practitioner

of nearly thirty years' standing he could quite confirm what the President had said about the death-certificate book. When he received the application from the British Medical Association there was a hint, conveyed directly or indirectly, that one should refer to the death-certificate book. He had never made a single entry on the counterfoil during the time he had been in practice, and therefore could not make any return to the inquiry. His own opinion was that the whole of those statistics were based on a blank counterfoil. His regret was that leading papers chose to ignore the real facts of the case, but it suited their purpose for a leader, and enabled them to get up some correspondence to sell the paper. One paper, for instance, knew very well that some fourteen or fifteen months ago they published leaders of a similar character, but it suited their purpose recently to publish a leader as if nothing had occurred before.

THE PRESIDENT remarked that the same paper would not publish a letter on the subject sent from this Council.

Mr. H. DIXON said he had been a practitioner for forty-five years, and his counterfoils bore the same blank face.

Dr. KERR did not think they ought to allow it to go forth that all certificates were blank. He had, for instance, always filled up the counterfoil.

Dr. MOIR thought the British Medical Association ought to be asked by this society to correct their mistake on the basis mentioned by Dr. Kerr. If they were called upon to institute a fresh inquiry into the subject he thought they would be bound in honour to do so, and the public would be bound to accept the figures when the matter was clearly laid before them.

Dr. J. J. RIDGE (Hon. Sec.) said that with regard to the proposed application to the British Medical Association, there could be no reason why the thing should not be done more properly than it was before; but he was perfectly confident that, within certain limits, the results would be the same, from the very condition of things.

The PRESIDENT thought they should not trust the inquiry to the British Medical Association. It was a thing they ought to investigate themselves.

On the motion of Dr. KERR, it was agreed to refer the matter to the Council to take what steps they deemed most advisable in the circumstances.

Dr. J. J. RIDGE then read a report "On 279 Returns of Medical Officers of Workhouses as to the Use or Dis-use of Alcohol Therein," which will be found at the commencement of the present number.

The PRESIDENT stated that the facts had been sent to the Association by

the Rev. Mr. Meredith, of Chichester, to whom, he thought, they ought to pass a very cordial vote of thanks, as well as to Dr. Ridge for the able way in which he had collated them and put them in form.

Dr. KERR spoke of the enormous decrease that had taken place in the consumption of alcoholic liquors in workhouses, which, on the whole, had been accompanied by an increased length of life and better discipline and health.

Votes of thanks having been awarded to the Rev. Mr. Meredith and Dr. Ridge the meeting concluded.

### A NEW MEDICAL DECLARATION.

IN 1888 the Council of the British Medical Temperance Association resolved to issue a circular to 2,000 of the leading physicians and surgeons of the United Kingdom, calling their attention to the three medical declarations respecting alcohol which had been issued during the last fifty years. This was accordingly done, the circular letter being as follows:—

*Carlton House, Enfield, Middlesex.*

*February, 1888.*

DEAR SIR,—You are doubtless aware that during the last fifty years three medical declarations respecting alcohol have been issued. The first of these, issued in 1839, was to the following effect:—

DECLARATION I.—“An opinion handed down from rude and ignorant times, and imbibed by Englishmen from their youth, has become very general, that the habitual use of some portion of alcoholic drink, as of wine, beer, or spirit, is beneficial to health, and even necessary to those who are subjected to habitual labour. Anatomy, physiology, and the experience of all ages and countries when properly examined, must satisfy every mind, well-informed in medical science, that the above opinion is altogether erroneous. Man, in ordinary health, like other animals, requires not any such stimulants, and cannot be benefited by the habitual employment of any quantity

of them, large or small; nor will their use during his lifetime increase the aggregate amount of his labour. In whatever quantity they are employed, they will rather tend to diminish it. When he is in a state of temporary debility from illness or other causes, a temporary use of them, as of other stimulant medicines, may be desirable; but as soon as he is raised to his natural standard of health, a continuance of their use can do no good to him, even in the most moderate quantities, while larger quantities (yet such as by many persons are thought moderate), do, sooner or later, prove injurious to the human constitution, without any exceptions. It is my opinion that the above statement is substantially correct.”

This document was signed by Sir Benjamin Brodie, Dr. W. F. Chambers, Sir James Clarke, Bransby Cooper, Dr. D. Davis, Sir J. Eyre, Dr. R. Ferguson, Mason Good, Dr. Marshall Hall, Dr. J. Hope, C. A. Key, Dr. R. Lee, Herbert Mayo, R. Partridge, Richard Quain, Dr. A. T. Thomson, R. Travers, Drs. Andrew and Alexander Ure, and in all by seventy-eight men of distinction in the profession.

DECLARATION II.—The second medical certificate was promoted by John Dunlop, Esq., in 1847, and was signed by upwards of 2,000 physicians and surgeons. Their testimony was as follows:—

"We, the undersigned, are of opinion:—1. That a very large portion of human misery, including poverty, disease, and crime, is induced by the use of alcoholic or fermented liquors as beverages. 2. That the most perfect health is compatible with total abstinence from all such intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, &c., &c. 3. That persons accustomed to such drinks may, with perfect safety, discontinue them entirely, either at once, or gradually, after a short time. 4. That total and universal abstinence from alcoholic liquors and beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness, of the human race."

Among the signatures to this document in London were those of Dr. Addison, Dr. Niel Arnot, J. Moncrieff Arnott, Esq., Dr. B. G. Babington, Dr. Beattie, Sir J. Risdon Bennett, Dr. A. Billing, Dr. John Bostock, Dr. Golding Bird, Dr. Black, Dr. R. Bright, W. Bowman, Esq., Sir B. C. Brodie, Sir W. Burnett, Dr. G. Budd, Sir G. Burrows, Dr. W. B. Carpenter, Dr. W. F. Chambers, Sir J. Clark, Dr. Copland, Sir J. Eyre, Dr. A. Farre, Dr. Robert Ferguson, Sir W. Ferguson, Sir J. Forbes, R. D. Grainger, Esq., Dr. Guy, Dr. Marshall Hall, Sir H. Holland, Sir Aston Key, F. Kiernan, Esq., W. B. Langmore, Esq., Dr. P. M. Latham, Sir J. McGrigor, Bart., Dr. J. A. Paris, Dr. Peacock, Dr. Pereira, Dr. Pettigrew, Dr. Prout, Dr. Toynbee, Dr. Wilks, Erasmus Wilson, Esq., Dr. Forbes Winslow, and many others of equal note.

In the provinces the following signed with many others:—Professor Adams, Dr. Aitken, Professor Alison, Dr. S. Begbie, W. Braithwaite, Esq., Dr. Buchanan, Dr. P. Crampton, Professor Curran, Dr. Keith, Sir H. Marsh, Dr. Q. E. Paget, Professor Pirrie, Professor J. Reid, Professor Syme, T. P. Teale, Esq., Dr. Andrew Wood, Dr. Wylie, &c., &c.

The third declaration was issued in 1871 to the following effect:—

DECLARATION III.—"As it is believed that the inconsiderate prescrip-

tion of large quantities of alcoholic liquids by medical men for their patients has given rise in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no Medical Practitioner should prescribe it without a sense of grave responsibility. They believe that Alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes, and neutralising to a large extent the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance."

This third declaration was signed by most of the leading consulting and hospital physicians and surgeons of the day.

It is now 17 years since the last declaration, 41 years since the second, and 49 since the first, and during this long period a vast amount of experience has accumulated, both as to the effects of alcohol, and as to the practice of abstinence, so that there should be no difficulty in determining



whether the above declarations are correct or not.

It has seemed to the Council of the British Medical Temperance Association highly desirable, both for the credit of the profession and the advantage of the public, that these declarations should be reviewed, and their statements confirmed or denied according to the judgment of the medical authorities of the present day.

I beg therefore respectfully to submit these declarations to your notice, and ask you to be kind enough to sign and return the enclosed form, if your experience and observations enable you to endorse them.

I am, Sir,

Yours obediently,

J. JAMES RIDGE,

*Hon. Sec. British Medical  
Temperance Association.*

To this circular a considerable number of replies has gradually been obtained, and the Council has now resolved to publish the names of those who have endorsed one or all of these declarations, but will be glad to receive additional names for future publication from any medical men who may desire to add the weight of their testimony. It should be remembered that many agree with the sentiments of the declarations who have not (as yet, at least) appended their names, and the responses and replies received are abundant evidence that the opinion of the medical profession as to the practicability and advantage of total abstinence is no less emphatic now than in past years, while the yearly additional experience of its practice and results renders that opinion more valuable now than it ever has been before.

Any additional names, with a statement as to the endorsement of all or any of the declarations, should be sent to Dr. J. J. RIDGE, *Hon. Sec.*, Carlton House, Enfield, Middlesex.

#### ABBREVIATIONS AND SYMBOLS USED.

S.—Surgeon.

P.—Physician.

C.S.—Consulting Surgeon.

C.P.—Consulting Physician.

A.S.—Assistant Surgeon.

A.P.—Assistant Physician.

O.P.—Obstetric Physician.

H.S.—House Surgeon.

H.—Hospital.

I.—Infirmary.

M.O.—Medical Officer.

M.O.H.—Medical Officer of Health.

M.S.—Medical Superintendent.

Lun. A.—Lunatic Asylum.

R.S.—Resident Surgeon.

A.R.S.—Assistant Resident Surgeon.

Gen.—General.

Ch. H.—Children's Hospital.

D.—Dispensary.

A.—Asylum.

L.—Lecturer.

The following physicians and surgeons endorse all three declarations :—

W. Anderson, FRCS., A.S., St. Thomas's H.

R. S. Archer, BA., MD. Dub., Liverpool.

R. G. Alexander, MA. Cantab., MD., C. P.

Bradford H., P. Halifax H.

F. P. Atkinson, MD., MRCP., Surbiton.

E. Annacker, MD., Res. A.O.S. and H.S.  
St. Mary's H.

C. E. Abbott, LKQCPI., Braintree.

R. Alford, FRCS., C.S. Weston-s-Mare H.

W. Arnold, MKQCPI., Belfast.

J. W. Anderson, MD., P. Glasgow Roy. I.

H. E. Armstrong, MD., M.O.H., Newcastle.

T. Rutherford Adams, MD., S. Croydon  
Gen. H.

J. W. Ashworth, LRCP., &c., S. Northern  
Cos. H. Incurables.

T. R. Armitage, MD., Lond., Cambridge  
Square, W.

M. S. P. Aganoor, MB., and CM. Edin.,  
Gloucester Gardens, W.

D. W. Aitken, MD., CM., Edinburgh.

A. Atcock, MD., MCHRUI., Dublin.

S. Hoppus Adams, MD. Lond., Bedford.

J. Armstrong, MB., Hon. P. Lying-in H.,  
Liverpool.

J. O. Affleck, MD., FRCP., P. Roy. I., Edin.

D. Brodie, MD., Canterbury.

R. W. Branthwaite, LRCP., M. Sup. Dal-  
rymple Home.

J. J. Barnes, LRCP., Bolton.

J. Fourness Brice, MD., Oxtou.

G. Black, MB., Keswick.

A. Broster, MD., Weston-super-Mare.

T. Bond, FRCS., S. Westminster H.

T. Browne, MD., Q. Univ. I., Fleet S., R.N.,  
Lunatic H., Yarmouth.

J. J. Byrne, LRCP., M.O. St. Joseph's H.,  
Preston.

Fancourt Barnes, MD., MRCP., P. Chelsea  
H. (Women), P. British Lying-in H.

- G. F. Burder, MD., FRCP., C.P. Bristol Gen. H.  
 J. O. Brookhouse, MD., MRCP, P. Gen. H., Nottingham.  
 E. Clifford Beale, MA., MB. Cantab., P. Gt. Northern H.  
 J. Byerley, FRCS., Egremont.  
 H. Browne, MD. Lond., C.P. Man. Roy. I.  
 G. S. Brady, MD., FRCS., S. H. Sick Children, Sunderland.  
 R. T. Bowden, MD., A.R.S. St. Bart's H., Chatham.  
 R. W. Burnet, MD., MRCP, P. Gt. N. H., Lond.  
 R. L. Bowles, MD., FRCP., C.P. Folkestone H.  
 J. B. Bradbury, MD., FRCP., P. Addenbrooke's H., Cambridge.  
 W. Bradley, LRCP. and s., Drogheda.  
 S. Browne, JP., MKQCPI, M. Sup. O. H., Belfast.  
 W. Bell, MRCS., C.S. Wirral Ch. H.  
 M. Bannister, LRCP., A.S. Manchester Ship Canal, Blackburn.  
 W. M. Bradley, MD., Jarrow-on-Tyne.  
 W. Bartlett, MRCS., LDS., Newcastle-u.-L.  
 S. Bagley, LKQCPI., Manchester.  
 J. Buckenham, LRCP., Cambridge.  
 A. W. Blacklock, MD. and CM. Aberd., P. Northern Counties H., Gateshead.  
 T. T. Blease, MRCS., S. Altrincham H.  
 A. Blackmore, MRCS., S. Manchester Lock H. and M.O.H.  
 W. W. Basil, MA., MB. Edin., Manchester.  
 M. Beverley, MD., Norwich.  
 H. T. Bewly, MD. Dub., A.P. Adelaide H., Dublin.  
 J. Mackenzie Booth, MA., MD., CM., S. Aberdeen, Gen. D.  
 C. J. Bennett, MRCS., S. Cheltenham G. H.  
 J. Beatty, FRCSL., P. Monkstown H., Co. Dublin.  
 W. Bruce, MA., MD., M.O. and S. Co. Gaol, Dingwall.  
 T. Bell, LRCP., Coroner for Rutland.  
 W. H. Blake, MB., BS. Lond., Harpenden.  
 M. A. Boyd, FRCSL., MRCP., P. Mater Misericordiae H., Dublin.  
 S. Barker, MD., C.P. Roy. Alexandra H., Brighton.  
 A. Beardsley, MRCS., FLS., C.S. North Lonsdale H., Grange-over-Sands.  
 J. Vincent Bell, MD., FRCS., C.S. St. Bart's H., Chatham.  
 W. W. Ballard, MD., S. Huntingdon County Hosp.  
 G. Buchan, MD., P. Town's H. and A. Glasgow.  
 G. S. Burnside, LRCSL., M.O. Clondalkin D.  
 S. Beattie, MB., CM. Edin., Stanley.  
 J. H. Bell, Bradford.  
 J. Branson, MRCP., M.O. Rotherham Un.  
 H. Branthwaite, FRCS. Edin., High Shot House, Twickenham.  
 J. Wallace Boyce, MB. Dublin, M.O. Blackrock D.  
 J. S. Boothroyd, MD., Brockley.  
 R. A. Blair, MD., Goole.  
 R. W. Batten, MD. Lond., Gloucester.  
 B. P. B. Burroughs, MRCS., Weston-super-Mare.  
 E. McDowel Cosgrave, BA., MD., P. Simpson's H., Dublin.  
 A. Carpenter, MD., MRCP., DPS. Cam., V. Pres. Br. Med. Assoc., Croydon.  
 J. Caldwell, MD., M.O. Shotts Iron Co.  
 J. W. Coryn, MRCS., Brixton.  
 H. A. W. Coryn, LSA., Brixton.  
 J. Ward Cousins, MD. Lond. MRCS., S. Roy. Portsmouth H.  
 A. Carless, MB., BS. Lond., Torrington Square, W.C.  
 H. Cooper, MRCP., S. Hampstead Home H.  
 W. Macfie Campbell, MD. Edin., C.S. Liverpool Northern H.  
 Annie E. Clark, MD. Berne, MKQCPI, P. Birmingham H. (Women).  
 W. T. Clegg, LRCP., A.S. Liverpool H. (Skin and Cancer).  
 A. G. Colquhoun, MRCS., Hon. Dep. Insp.-Gen. Hospitals and Fleets, R.N.  
 W. Carter, MD. Lond., FRCP., P. Roy. Southern H. Liverpool.  
 F. C. Coley, MD., P.H. (Sick Children) Newcastle.  
 G. Chalmers, MB. and CM. Edin., York.  
 W. Cadge, FRCS., Sen. S. Norfolk and Norwich H.  
 T. Cooke, FRCS., Sen. A.S. Westminster H.  
 A. H. Cook, MB. Lond., M.O. Hmpstd. I.  
 W. G. Cokestake, MRCS., S. Children's H., Derby.  
 R. Carter, MB., S. Roy. Min. Water H., Bath.  
 J. O. Chisholm, LRCP. and s. Edin., Glasg.  
 E. Corcoran, LKQCPI., S. Med. Staff, Rochester.  
 W. Carte, JP., FRCS., P. and S. Roy. H. and H.M.S. Prison, Kilmainham.  
 E. Crockett, FRCS., Wolverhampton.  
 J. A. Coen, LKQCPI., Castlereau.  
 C. Ashley Cummins, MD., M.O. Cork Union H.  
 H. L. Calder, MD., S. Leith H.  
 J. Carmichael, MD. FRCP. Lon., Dis. Children Univ. Edinburgh.  
 W. Colles, MD., Dublin.

- J. M. Chapman, MD, Edin., P. Northern I. Inverness.
- D. W. Currie, MB., CM., DPH. Cam., Tilli-coultry.
- M. Cameron, MD., FFPSG., London, W.C.
- S. G. Campbell, MD. and M.CH. Edin., Glasg.
- C. W. Cathcart, MB., FRCS., A.S. Royal I. Edinburgh.
- H. G. Croly, FRCS., Sen. C. S. of Dub. H.
- N. Carmichael, MD., FFPSG., Exam. State Med. Glasgow.
- T. Chant, MRCS., South Hampstead, N.W.
- W. H. Collier, LRCP., Carbrook, near Sheffield.
- A. J. H. Crespi, MD., Wimborne.
- A. R. Coldstream, MD., Florence.
- T. Dale, LRCP., MRCS., Liverpool.
- T. B. Darling, MB., Edinburgh.
- G. T. Davies, MD., Sen. A.S., H. Women, Liverpool.
- Maurice Davis, MD., J.P., London, W.C.
- J. Davison, MD., FRCS. Edin., C.S. Islington Prov. D.
- J. Davy, MD., Halifax.
- J. Roberson Day, MD. Lond., A.P. London Hom. H.
- P. H. Day, LRCP. and s., M.O.H. Poulton-le-Fylde.
- E. Dewes, MD., J.P., C.S. Coventry H., Bournemouth.
- S. Dickey, MD., M.CH., P. Belfast Lying-in H.
- J. Dickson, M.D., Ballynahinch.
- J. Dixon, MB. and CM., S. Mildmay Med. Mission.
- R. Dobbie, MD. Edin., P. Ayr H., S. Ayr Prison, M.O.H.
- G. Dods., MD. Edin., Edinburgh.
- E. J. Domville, MRCS., S. Devon and Exeter H.
- J. McPhail Dougall, MD., CM., Dunoon.
- T. Drapes, MB., M. Sup. Lun. A., Ennis-corthy.
- C. R. Drysdale, MD., MRCP., Sen. P. Met. H. of London.
- J. G. Dudley, MA., MD. Cantab., C.P. North London H. Consump., P. Met. H. London.
- G. F. Duffey, MD., FKQCPL., P. City of Dublin H.
- Clement Dukes, MD., BS. Lond., MRCP., Sen. P. Rugby H.
- A. J. Duncan, MD. Edin., C.S. Dundee Royal I.
- J. Eaton, MD., FFPSG., M.O.H. Cleator Moor.
- W. S. Eccles, MRCS., Norwood, S.E.
- A. M. Edge, MD., BSC., MRCP., P. Salford Royal H.
- J. B. Edis, MRCS., LRCP., Hon. S. H. (Women) Liverpool.
- F. Swinford Edwards, FRCS., S. West London H.
- G. Elder, MD., Sen. S. Samaritan H. (Women), Nottingham.
- H. D. Ellis, MD., Eastbourne (Army).
- J. Ewens, LRCP. and s., S. Bristol H. (Women).
- G. Evans, MD., CM., Plumstead.
- W. R. Evans, MA., MD., P. Dublin Ortho-pædic H.
- W. C. Faraker, MRCS., Forest Hill, S.E.
- R. Farrar, BA. Oxon, MRCS., H. S. St. Bartholomew's H.
- J. T. Faulkner, MD. Lond., Stretford.
- A. F. Fiddian, MB. Lond., Cardiff.
- E. Field, MD., Hon. M. D. Roy. United H., Bath.
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- S. Wilks, MD., FRCP., Con. P. Guy's H., Grosvenor Street, W.
- D. M. Williams, LKQCPI., P. Liverpool H. Consumption.
- H. W. Williams, MD., P. Margaret St. I., Chapel Place, W.
- J. T. Williams, MRCS., S. Barrow H.
- C. Fancourt Willis, MD., MRCP., Indian Med. Service, Army and Navy Club.
- G. Willis, MD., P. Monmouth H. and D.
- Julian Willis, MRCP., Sutherland Aven., W.
- C. S. Willis, CB., LKQCPI., Brigade S. Army Med. Staff.
- G. Wilson, MD., FRSE., M.O.H. Leamington.
- J. H. Wilson, MB., CM., Sheffield.
- L. Forbes Winslow, MB., Camb. DCL., MRCP., P. North London H. Consumption, Wimpole Street, W.
- L. Winterbotham, CS., Cheltenham H.
- W. Wordley, LSA., Gt. Suffolk St., S.E.
- J. C. Werthington, MRCS., C.S. Lowestoft H.
- Gaskoin Wright, LRCP., Manchester.
- R. W. Wright, LRCP., Med. Staff, Woolwich.
- Otho F. Wyer, MD., Hon. P. Warneford H., Leamington.
- W. Williams, MD., MRCP., P. Roy. Southern H., Liverpool.
- G. E. Yarrow, MD., M.O.H. St. Luke's, Old St., E.C.
- G. R. Young, MD., M.CH., Birmingham.
- G. H. Younge, LKQCPI., S. Army M. Serv., Rathdowney.
- P. Young, LRCS., Dundee.
- P. A. Young, MD., FRCP. Ed., Edinburgh.

We have now to give the names of several members of the profession who

have only signed one or two of the declarations, or have signed with some reservation.

*Declaration I. alone* has been signed by one gentleman:—

J. Tatham, MD., MRCP., P.H. Chest Dis., Brompton.

*Declaration II. alone* has been signed by five:—

H. J. W. Barrow, MS., Surgeon-Major A.M.S., Newport, Mon.

Sir J. Risdon Bennett, LL.D., MD., FRCS., FRCP., C.P. St. Thomas's H.

R. L. Heard, MD., FRCS., Bray.

W. V. Lush, MD. Lond., MRCP., P. Dorset Co. H.

M. J. Turnbull, MD. Edin., FRCS. Edin., Coldstream, N.B.

*Declaration III. alone* has been signed by twenty-two:—

F. J. Allan, MD., DPH. Camb., London E.  
J. W. Bridges, MD., FRCP., Med. Inspector Local Government Board.

J. S. Bristowe, MD., FRCP., P. St. T. H.

J. E. Brooks, LRCP., JP., Ludlow.

W. H. Copley, LRCP., Hon. S. North Cambs. H., Wisbech.

J. Couch, MRCS., Swansea.

J. K. Couch, LRCP., Swansea.

J. A. Dewar, MD. Edin., C.S. Arbroath I.

F. B. Fisher, LRCP., MRCS., Sen. S. Dorset Co. H., Dorchester.

A. Foxwell, MB. Cantab., MRCP., A.P. Gen. H., Birmingham.

R. Haggard, MRCS., Hon. S. Orthop. H., Hull.

W. H. Haley, LRCP., Wakefield.

Sophia Jex-Blake, MKQCPI., P. Edinburgh H. (Women).

Johnston McKie, MD., Aural S. Glasgow Roy. I.

G. W. Potter, MD., Cheapside, E.C.

H. Rayner, MD., Med. Sup. Hanwell A.

A. Robertson, MD., FFPSG., P. Roy. I., Glasgow.

T. Scattergood, MRSC., S.H. (Women), Leeds.

J. Vorse Solomon, FRCS., C.S. Birmingham Eye H.

G. Westby, MKQCPI., A.S. Cancer Hosp., Liverpool.

A. Wallace, MD. Oxon, MRCP., P. Colchester H.

D. Williams, MD. Lond., MRCP., A.P. East London H. (Children).

*Declarations I. and II.* have been signed by nine:—

J. E. Eddison, MD., Sen. P. Leeds I.

C. Elliott, MD., Clifton.

J. Gill, MD. Brussels, LRCP., Clifton.

J. Ince, MD., S.-Maj. Ind. Med. Ser. (rtd.)

C. McDermott, MA., MD., M.CH., Ennis.

G. Robertson, MD., Kilburn, N.W.

F. Vacher, FRCS., P. Birkenhead Fever H., M.O.H.

G. Satchley, M.B., Bristol.

W. Spence Watson, FRCS., S. Gt. N. H.

*Declarations I. and III.* have been signed by five:— [Road, E.

M. Greenwood, Jun., MD., DPH., Queen's

M. A. Donnelly, LRCSI., House S. Lock H., Dublin. [S. London H.

Jeremiah McCarthy, MB. Lond., FRCS.,

R. J. Pye-Smith, FRCS., S. Sheffield H. & D.

T. W. Thursfield, MD., MRCP., P. Gen. H., Leamington.

*Declarations II. and III.* have been signed by ten:—

L. Athill, MD., FKQCPI., Dublin.

J. S. Coghill, MD., FRCP., Hon. P. Royal Nat. H. Consump., Ventnor.

J. Matthews Duncan, MD., FRCP., Obs. P. St. Bartholomew's H.

G. M. Edmond, MD., MA., J.P., P. Aberdeen D. and H. (Incurables).

J. B. Fairmann, LRCP., Rotherham.

W. S. A. Griffith, MB., FRCS., Obs. P. Gt. N. H., Harley Street, W.

E. Pope, MRCS., M.O. Berkhamstead Union, Tring.

B. Roberts, MD., Eastbourne.

W. B. Tate, MD., MRCP., P. Sup. Nottingham L.A.

J. H. Wilson, MB., BS., Royton.

*Nine endorse the three Declarations* with the exception of one or two phrases, namely:—

Mabyn Read, MD. Cantab., Battersea.

C. J. Hare, MD. Cantab., FRCP.

G. E. Paget, MD. Cantab., Reg. Prof. Physic Univ. Cambridge. [Throat H.

Coleman Sewell, MB. Lond., P. London

J. Edmunds, MD., MRCP., P. Lond. Temp. H.

J. J. Ridge, MD., BS., BA., BSC., P. Lond. Temp. H., M.O.H.

B. O'Connor, MD., BA., MRCP., P. North London Consumption H.

A. H. Douglas, MD., FRCP. Edin., late Pres. Roy. Coll. Phys., Edinburgh.

W. Spence Watson, FRCS.



## CRIMINAL RESPONSIBILITY IN DELIRIUM TREMENS.

It is somewhat remarkable that a recent decision of Lord Young on a charge of child murder by neglect and starvation—a decision unique in the annals of criminal jurisprudence—should have escaped public attention. In the past there have been a few acquittals and many convictions on similar pleadings; but Lord Young has created a new legal precedent by peremptorily refusing to allow the case to go to the jury.

At the last circuit of the High Court held at Glasgow, Elizabeth Short, wife of a sergeant in the Highland Light Infantry, was charged with culpable homicide. The indictment ran that, between 6th and 11th of July, 1889, in the residence of her husband at Hamilton Barracks, she neglected to provide with necessary food, clothing, and nursing her infant son, in consequence of which he died on 11th of July, and was thus killed by her. Mrs. Bisset, wife of a colour-sergeant in the same regiment, deposed that the prisoner was delivered of the deceased baby at the barracks on 2nd of June. On the 6th witness found the child small but healthy. On that day the accused was the worse for drink, and was so also frequently. At three weeks old the baby appeared to be falling back. One day, when the mother was very drunk, the baby was in a bad state and the house was very dirty. Though the child often cried, witness never saw the accused ill-treating her baby. Mrs. McFarlane, wife of another sergeant, said that the prisoner's husband left barracks for the camp at Lanark; prisoner was drunk every day. When witness took charge of the child it was in a filthy condition and ravenously hungry. Dr. Beith, military surgeon, testified that the child was small, but healthy. On 6th of July the mother was suffering from alcoholism, and on 8th of July from delirium tremens. The house was very dirty. He had the child taken away, but it was afterwards returned to the mother. A *post-mortem* examination showed that the child died from

debility and ulceration of the bowels caused by starvation and neglect.

After the Crown counsel had contended that the charge of culpable homicide had been established, Lord Young, without calling on the counsel for the accused, said that no evidence had been adduced which could legally justify a verdict of culpable homicide. If a woman designedly withheld food to injure the child, that would be a crime. But he denied that it was murder, culpable homicide, or any crime punishable by law in that court, for either a woman or a man to drink too much whisky, or get an attack of delirium tremens, which was insanity. The mother's conduct was most reprehensible, and so was her husband's, who persisted in procreating children by a dipsomaniac, and leaving her to attend to them, though she was really incapable of such a trust. This was a case for moral reprehension only. Resolute efforts, not yet completely successful, were being made to induce the Government to provide for the compulsory treatment of such cases in suitable homes. In this case there was no intention to injure, and he must rule that there was no proof of any crime. The jury, therefore, returned a formal verdict of "Not guilty," and, at their request, the judge severely reprimanded both husband and wife.

Mr. Justice Day ruled "that whatever the cause of the unconsciousness, a person not knowing the nature and quality of his acts is not responsible for them" (Reg. v. Baines, 1886). Chief Baron Palles ruled that if any one, from long watching, want of sleep, or depravation of blood, was reduced to such a condition that a smaller quantity of stimulant would make him drunk than would do so if he were in health, then neither law nor common-sense could hold him responsible for his acts (Reg. v. Mary R., 1887). Baron Pollock ruled that if at the time an alleged murder was committed (though the prisoner had been a drunkard and had delirium tremens) he had taken only such a

quantity of intoxicating liquor as an ordinary man could take without upsetting his reason, an insane predisposition being the main factor, although the drinking of a small quantity of alcohol was the contributory cause, the plea of irresponsibility was good (Reg.

*v. Mountain*, 1888). These judicial utterances capped by Lord Young's declining to send the case of Elizabeth Short to the jury, really portend a revolution in our criminal jurisprudence. —*British Medical Journal* (Oct. 19).

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## Society for the Study of Inebriety.

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A QUARTERLY meeting of the Society was held at the Medical Society of London Rooms, Tuesday, 1st October, the President, Dr. Norman Kerr, in the chair.

A paper was read by Dr. S. Trestrail on "Some of the Circumstances favourable to Inebriety." Dr. Trestrail was of opinion that it was the duty of mothers and pregnant women to abstain from alcohol for the sake of their offspring. He also deprecated the use of ale and wine at boarding schools, which was often the commencement of a habit conducing to inebriety. He objected to the dual basis of the Church of England Temperance Society, because it gave an indirect sanction to alcoholic drinking, and said no young man with the hereditary taint of alcohol in him could with safety belong to the general section. The drinking of healths, and excessive tea-drinking and smoking, also contributed to the development of inebriety; and he thought that kindly sympathy, rather than harsh treatment, should be practised by all who wished to reclaim the inebriate.

Dr. JABEZ HOGG, in thanking Dr. Trestrail for his admirable paper, especially desired to emphasise the caution against giving intoxicants to children. The general tendency in the medical profession now was to withhold stimulants from young children. He had himself seen excellent results from the improved practice. His own family bore the extremes of India better than most persons, which he ascribed to their total abstinence. Fatigue could be better undergone without alcohol.

Dr. PARSONS (West Worthing) was of opinion that alcohol was most detrimental to children, and it was very

bad to give them an allowance of ale or wine at boarding schools. The medical profession ought to set their faces against this pernicious custom. He had recently seen an infant, not twelve months old, literally intoxicated by port wine to quiet it while travelling by railway. This was the very way to develop inebriety in after-life.

Dr. PARAMORE narrated the case of a lady who had been a temperance worker for twenty years, who on her marriage at once became an inebriate, and had continued so for two years up till that day. In a brewers' school with which he was acquainted, no beer was given to the children.

Several members expressed approval of the dual basis of the Church of England Temperance Society.

The PRESIDENT replied in the negative to the query, Is there an arsenic inebriety? though he had known arsenic, iodine and other substances, make a permanent impression on the nerve-centres. Only narcotics and anæsthetics (such as alcohol, opium, &c.) gave rise to a true inebriety or narcomania.

A resolution was passed asking the Home Secretary and the Government to use their influence to secure the appointment of a Parliamentary Committee to enquire into the results of the working of the Inebriates' Act, with a view to amended legislation. It was also resolved to approve the leading proposals of Mr. Charles Morton's Restorative Homes (Scotland) Bill: (1) Voluntary admission and subsequent detention on a simple request only. (2) Compulsory reception and detention of inebriates unwilling or unable to apply of their own accord. (3) Provision at the public charge for the care and treatment of impecunious inebriates.

## Notes and Extracts.

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EFFECT OF ALCOHOL ON THE SECRETION OF BILE.—Dr. Cheltsoff publishes in the *Ejenedelnaya Klinicheskaya Gazeta* an account of some experimental observations on dogs undertaken with a view of determining the nature and amount of the influence of alcohol upon the secretion of bile. He made biliary fistulæ in the animals, and after all the disturbance caused by the operation had passed off he proceeded to observe the effect of introducing alcohol in various quantities into the stomach. The bile as it was secreted was collected in glass receivers, which were changed every few minutes, the contents being measured, weighed, and otherwise examined. The results showed that small quantities of alcohol either have no perceptible effect on the bile or serve to increase it slightly. Large doses, on the other hand, perceptibly diminish the flow, though sometimes there is at first a temporary increase. Medium doses do not give any constant result. Dr. Cheltsoff has come to the conclusion that the alcohol acts directly on the hepatic cells.—*Lancet*, Nov. 16.

NOSTRUMS FOR INEBRIETY.—Though the failure of all alleged "specifics" in the treatment of inebriety has been shown to have been as marked as in the case of most other diseases, some of these wonderful panaceas seem to bear a charmed life, and keep every now and again cropping up in a fresh place. Not one of these nostrums has attained a greater celebrity than the "bark cure." All over the world the marvellous "cures" by red cinchona were blazoned forth in astonishing profusion. Even now, in generally well-informed and philanthropic circles the presumed virtues of this "unfailing cure for drunkenness" are loudly proclaimed. Dr. Earle, of Chicago, who has had a large experience of inebriates, has never seen a cure from the use of this vaunted remedy, and not once has he found that it disgusted the patient with the taste of alcohol. *Per contra*, he has seen

this "infallible specific," which is a strongly spirituous preparation, containing at times as much as 48 per cent. of proof spirit, directly cause the relapse of a considerable number of reformed inebriates.—*British Medical Journal*.

WHAT SHALL WE DO WITH THE INEBRIATE? — Dr. E. T. Strong, of Elizabethtown, N.Y., in a letter to the *Albany Medical Annals*, says:—"I have always held that (with an occasional exceptional case of drink mania) the inebriate was a vicious, selfish creature, who cares for nothing but the gratification of his appetite, and gets drunk just as he would ruin an innocent girl, or eat good things till his belly ached. I have nothing but contempt for such a fellow, be he pauper or millionaire. I think the modern method of dealing with these cases is maudlin. Let sharp and vigorous punishment follow every exhibition of inebriety; not a fine that takes the food out of the mouths of the inebriate's wife and children, nor a gaol, where the inebriate has warm room, plenty to eat, and society that is congenial, but the lash, the cold douche, disfranchisement, solitary confinement with a diet the reverse of luxurious. This will have more effect on him and his ilk than sympathy with him and denunciation of the 'rumseller.' When I think of the miserable brutes getting drunk while their families grow cold and hungry, I think inebriety ought to be classed with burglary at least."

ALCOHOL IN THE WORKHOUSE.—The following resolution, reported by a committee, which included Mr. William J. Square, F.R.C.S., has been passed by the Plymouth Board of Guardians:—"Having considered the large consumption of ale, brandy, gin, and wine in the workhouse and infirmary of the Plymouth Incorporation of Guardians, and having especially inquired into the consumption of stimulants in a large number of workhouses and their infirmaries, and



having found that in a very large number of them the use of stimulants has of late years considerably diminished, and in many instances been given up, and that on reference to reliable statements they find that in thirty-seven metropolitan workhouses the total expenditure in 1886 and 1887 was under twenty shillings, and that in twenty-two metropolitan workhouse infirmaries it in no instance amounts to twenty shillings, your committee is of opinion that the comfort of the inmates, the order of the house, and the pockets of the ratepayers, would all be advantaged if the consumption of stimulants in our house was largely diminished; and ventures to hope that the Board of Guardians will unanimously support its opinion, and request their medical officer to act as far as possible in accordance with the wishes of the Board of Guardians courteously expressed to him."

**ALCOHOL IN LUNATIC ASYLUMS.**—The temperance advocates on the joint committee for the management of the Lincolnshire Lunatic Asylum have scored a victory, and Mr. Proctor's raid against the use of intoxicants in the asylum has been crowned with as much success as that gentleman could have reasonably looked for. A sub-committee appointed to enquire into the subject have presented their report, and the joint committee of management have decided, after considerable discussion, to suppress the asylum brewery, where, as our readers will remember, two kinds of malt liquor were manufactured—one, at a cost of 5½d. per gallon, for the patients, and the other, at a cost of 10d. per gallon, for the officers of the asylum. It is not decided that no beer at all is to be consumed in the institution, but whatever supplies of the kind are wanted are to be obtained by contract from outside, and beer is, for the future, to be cut off from the regular dietary of the ordinary patients. With this effort, however, the spirit of temperance reform in connection with the asylum seems to have exhausted itself, or the medical opposition was too strong for the reformers. The medical superin-

tendent solemnly warned the committee against suppressing the use of wine and spirits, as their administration was absolutely necessary in the case of many of the patients, and therefore no change was made in this particular matter. The officers of the asylum were granted a monetary allowance in lieu of beer, and the patients, by the way of set-off against being deprived of their malt liquor, were permitted for the first time to enjoy the luxury of butter with their breakfast.—*County Council Times*.

**A MEDICAL MAN'S EXPERIENCE.**—At a recent meeting of the St. Michael's and St. Peter's Branch (Canterbury Diocese), held under the presidency of the Rev. G. B. Coulcher, a paper was read by Dr. H. S. Monckton, entitled, "Some of the Medical Aspects of Intemperance." Dr. Monckton said that when he undertook to read this paper he was not a total abstainer; but, admiring and esteeming those who were, he had enrolled himself in the General Section of the C.E.T.S., and it was with hearty goodwill and honest intentions that he had signed the declaration required from members. It was now all but universally acknowledged that alcoholic drinks were not necessities for man, but merely luxuries—perhaps, in some cases, medicines. He had been all his life a moderate man, and only drank stimulants with food as part of his regular meals. Some years ago he tried total abstinence for twelve months, but at the end of that time, at the urgent request of friends in whose judgment he placed great confidence, and who thought his health was suffering, he resumed a moderate use of stimulants. A month ago, however, when preparing his present lecture—convinced, perhaps, by his own arguments—he resolved to give total abstinence another trial, and was happy to say he felt no worse at present. Without pledging himself, he thought he should give total abstinence another fair and sufficiently prolonged trial, and perhaps he should ultimately become a member of the "Total Abstaining" Branch of the C.E.T.S.—*Temperance Chronicle*.

THE  
MEDICAL TEMPERANCE JOURNAL,

April, 1890.

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Original Contribution.

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ALCOHOL IN HOSPITALS.

THE Council of the British Medical Temperance Association are entitled to the thanks of Temperance reformers for their assiduity in accumulating valuable information upon the alcohol question. Their latest contribution to our store-house of permanent facts is a comparative report of the consumption and cost of alcohol in hospitals and infirmaries in the years 1863 and 1888, showing a large diminution during the twenty-five years under review. The Report, which we have pleasure in giving entire, was prepared by Drs. John Moir, Thomas Morton, and Walter Pearce, who have evidently done their best to obtain accurate and complete information.

It will be seen that the first table gives ample details concerning 163 hospitals for the years 1863 and 1888, the number of beds and in-patients, with the amount expended upon milk and alcoholic drinks—and shows that during twenty-five years the milk bill has increased over 300 per cent., while in the same period there has been a decrease of about 47 per cent. in the consumption of alcohol.

The second table contains a list of sixty hospitals whose reports for 1888 were received without any data for comparison with 1863, but the reporters give good reasons for their belief that in those hospitals an “estimated decrease in the consump-

tion of alcohol of 60·8 per cent. may be relied upon as being a fairly accurate statement of the actual state of affairs."

In the third table we have details showing that, as regards the cost of alcohol per bed in hospitals and infirmaries, there has been a decrease of from 30 to 83 per cent. since 1863; but of seventy-three hospitals thus compared only eight show an increase, and only two a marked increase. In these seventy-three hospitals there has been an increase of 25 per cent. in the number of beds, and a decrease of 47 per cent. in the average cost of alcohol per bed during twenty-five years.

The Committee explain that their report must not be taken as absolutely, but only as relatively, correct, owing to the difficulty of obtaining complete and reliable statistics; and they think it would be "a great benefit to the general hospital administration of the country if a uniform system of keeping accounts were adopted, such as already exists in the forms of the Local Government Board for union and workhouse infirmaries, and in other Government hospitals, so that an accurate annual comparison of expenditure could be made under the different headings."

We cordially congratulate the British Medical Temperance Association upon the business-like character of this report, as well as upon the encouraging results it has tabulated and published, and trust that other researches of an important character will be undertaken and carried out with equal efficiency under the auspices of the Association.

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#### REPORT OF COMMITTEE ON THE CONSUMPTION OF ALCOHOL IN HOSPITALS IN 1863 AND 1888.

MR. PRESIDENT AND GENTLEMEN,—In looking back on the state of medical opinion a quarter of a century ago, as regards the consumption of alcohol in hospitals, and comparing it with that of to-day, your Committee feel that but for the labours of Dr. Fleetwood Buckle, fleet surgeon, R.N., published in a valuable work on the "Vital and Economical Statistics of the Hospitals, Infirmaries, &c., of England and Wales, for the year 1863," and the hearty response of the secretaries of these hospitals to a circular sent them by your Committee last year, no such analysis



and comparison as we are enabled to present to you to-day would have been possible, and we beg to record our thanks to these gentlemen for the valuable and ready assistance which they have rendered to us, as our work has thus been rendered comparatively light. We have also to thank Mr. F. W. Thompson, one of the head masters of the West Ham School Board, for his help in drawing up the tables, and going through our figures to insure their accuracy, and so aiding us to give a true account of the vast mass of statistics which were placed at our disposal. We have further compared our tables, as far as possible, with those of Mr. H. C. Burdett, for the year 1888, and published by him in the "Hospital Annual" for 1889.

We find, however, from the limited details in the reports and balance sheets of many of the various hospitals, that in a good many cases there has been a considerable difficulty in obtaining reliable statistics, and this difficulty has been accentuated by the different ways in which the hospitals keep their accounts, very few of the balance sheets, indeed, being kept on the same plan. Your Committee feel this so strongly that they cannot help placing on record their opinion that it would be a great benefit to the general hospital administration of the country if a uniform system of keeping accounts were adopted, such as already exists in the forms of the Local Government Board for union and work-house infirmaries, and in other Government hospitals, so that an accurate annual comparison of expenditure could be made under the different headings. This at present, for the reasons stated, is impossible, and consequently our report cannot be taken as absolutely, but only as relatively correct. An uniformity of reports, balance sheets, and tabulated statements of the various hospitals of the kingdom is much to be desired. This, however, being altogether beyond the control of your Committee, while preventing absolute accuracy, has not vitiated in any very appreciable degree a general and relative comparison which may be thoroughly relied upon as between the year 1863, furnished by Dr. Buckle, and 1888, so far as the consumption of alcohol is concerned.

Table I. is a general comparison of the cost of provisions and alcohol in each hospital, comprising the number of beds, and of in-patients, the amounts expended on milk, wines, and spirits, beer and porter, with the total spent on alcohol, and the cost of alcohol per bed per annum.

## METROPOLITAN

No.	NAME OF HOSPITAL.	No. OF BEDS.		No. OF IN-PATIENTS.		EXPENDED ON MILK.	
		Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.
1	London ... ..	445	776	4735	8268	£ s. d.	£ s. d.
2	Guy's ... ..	600	500	5507	5385	...	2846 19 5
3	St. George's ... ..	350	351	4075	4034	347 10 6	1047 2 0
4	Middlesex ... ..	...	310	...	2819	...	968 12 0
5	St. Mary's ... ..	150	279	185	3515	...	...
6	University College ... ..	...	209	...	2701	...	484 18 10
7	King's College ... ..	152	206	1675	2124	208 19 11	676 0 6
8	Westminster ... ..	191	205	1828	2580	169 13 8	736 15 0
9	Charing Cross ... ..	125	175	1102	1870	89 2 11	534 4 5
10	Royal Free ... ..	150	150	1257	1963	...	425 8 11
11	St. Thomas' ... ..	...	433	...	4385	...	...
12	Richmond ... ..	...	40	...	409	...	196 9 7
13	Seamen's (late Dreadnought) ... ..	...	250	...	2463	...	869 13 3
14	Metropolitan, King's Road ... ..	...	51	...	247	...	...
15	Great Northern Central ... ..	50	53	84	773	19 6 6	166 8 8
16	London Fever ... ..	200	190	2217	982	293 11 2	287 11 0
17	For Sick Children, Great Ormonde Street ... ..	52	179	511	1186	124 0 1	525 3 10
18	Samaritan Free, for Women and Children ... ..	...	52	...	508	...	187 19 8
19	Brompton, for Consumption ... ..	210	321	1150	1215	836 14 1	...
20	Victoria Park (Consumption) ... ..	72	164	507	1107	139 16 8	408 17 3
21	Hospital for Women, Soho Square ... ..	...	66	...	620	...	230 0 10

## PROVINCIAL

No.	NAME OF HOSPITAL.	No. OF BEDS.		No. OF IN-PATIENTS.		EXPENDED ON MILK.	
		Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.
22	Leeds Hospital for Women and Children ... ..	...	42	...	184	£ s. d.	£ s. d.
23	Salford and Pendleton Royal Hosp. and Disp... ..	10	60	69	796	...	53 9 8
24	Birmingham—Queen's ... ..	180	120	2134	2034	287 7 6	410 17 11
25	Stratford-upon-Avon ... ..	18	24	96	231	...	34 13 2
26	Liverpool—Stanley ... ..	104	70	769	702	...	...
27	Chesterfield and North Derby ... ..	40	40	211	269	...	39 11 5
28	Devon and Torbay ... ..	...	52	...	395	...	...
29	Isle of Man (General)... ..	...	24	...	164	...	56 17 11
30	Preston and County of Lancaster Royal Infmy. ... ..	...	100	...	1270	...	255 18 6
31	West Bromwich District ... ..	...	50	...	494	...	108 13 4
32	Manchester Royal Eye ... ..	...	100	...	1301	...	...
33	Bradford Ear and Eye ... ..	...	45	...	523	...	52 13 0
34	Dudley—Guest... ..	...	75	...	674	...	191 9 8
35	Guildford—Royal Surrey County ... ..	...	96	...	673	...	240 17 6
36	Burton-on-Trent General Infirmary ... ..	...	60	...	402	...	99 6 6
37	Wakefield Clayton ... ..	...	52	...	346	...	134 11 9
38	Walsall Cottage ... ..	...	42	...	115	...	57 13 0
39	North Wales Rhyl Royal Alexander ... ..	...	200	...	1870	...	...
40	South Warwick, Warnford and Leamington ... ..	...	119	...	1072	...	234 6 0
41	Bury Dispensary ... ..	...	40	...	258	...	...
42	Scarboro' North Sea Bathing Hospital ... ..	...	93	...	563	...	71 13 3
43	Harrogate Bath Hospital ... ..	...	75	...	603	...	90 0 6

HOSPITALS.

EXPENDED ON WINE AND SPIRITS.		EXPENDED ON BEER AND PORTER, &c.		TOTAL SPENT FOR ALCOHOL.		COST OF ALCOHOL PER BED PER ANNUM.	
Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
...	...	...	...	1390 16 5	805 6 1	3 2 6	1 0 9
...	253 11 6	...	89 16 10	...	343 8 4	...	0 13 8
558 9 0	566 3 0	642 19 6	492 8 0	1201 8 6	1038 11 5	3 8 9	2 18 10
...	177 1 0	...	115 8 8	...	292 9 8	...	0 18 10
...	...	...	...	845 19 8	565 9 1	5 12 9	2 0 6
...	381 14 7	...	320 8 7	...	702 3 2	...	3 7 2
845 18 8	219 12 6	325 3 10	75 17 2	1171 2 6	295 9 8	7 14 1	1 8 8
...	...	...	...	640 1 0	252 9 1	3 7 0	1 4 7
...	...	...	...	401 15 9	305 10 8	3 4 3	1 14 10
...	...	...	...	339 11 5	420 13 4	2 5 3	2 8 3
...	810 0 0	...	65 0 0	...	875 0 0	...	2 0 5
...	66 8 0	...	53 1 2	...	119 9 2	...	2 19 8
...	210 1 6	...	118 15 6	...	328 17 0	...	1 6 3
...	31 10 9	...	13 14 6	...	45 5 3	...	0-17 9
42 4 2	39 13 0	43 16 7	13 15 6	86 0 9	63 8 6	1 13 10	1 3 11
455 14 6	138 6 0	194 8 3	12 2 2	650 2 9	150 8 2	3 5 0	0 15 9
...	...	...	...	131 16 8	76 8 10	2 10 8	0 8 6
...	51 3 5	...	43 8 11	...	95 2 4	...	1 16 7
482 3 3	844 0 6	182 9 0	60 10 0	664 12 3	904 10 6	3 3 3	2 16 4
116 11 0	136 7 11	99 7 7	110 12 10	215 18 7	247 0 9	2 19 5	1 10 1
...	95 2 0	...	53 8 0	...	148 10 0	...	2 5 0

HOSPITALS.

EXPENDED ON WINE AND SPIRITS.		EXPENDED ON BEER AND PORTER, &c.		TOTAL SPENT FOR ALCOHOL.		COST OF ALCOHOL PER BED PER ANNUM.	
Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
...	...	...	...	22 8 0	22 12 4	...	0 10 9
212 3 4	71 13 1	377 7 0	124 17 1	589 10 4	196 10 2	2 4 9	0 18 9
14 18 8	12 5 0	34 13 0	13 10 0	49 11 8	25 15 0	3 5 6	1 11 1
...	...	...	...	37 17 5	68 5 8	2 15 0	1 1 8
...	5 8 8	...	15 6 9	21 13 6	20 15 5	0 7 3	0 19 6
...	5 0 0	...	0 10 0	...	5 10 0	0 10 7	0 10 4
...	...	...	...	...	9 17 9	...	0 2 1
...	115 16 11	...	16 4 6	...	152 1 5	...	0 8 2
...	30 15 11	...	30 4 0	...	60 19 11	...	1 6 5
...	9 1 0	...	15 17 6	...	24 18 6	...	1 4 4
...	...	...	...	...	17 3 9	...	0 2 10
...	31 6 5	...	35 4 1	...	66 10 6	...	0 7 8
...	95 12 6	...	51 6 2	...	146 18 8	...	0 17 9
...	41 2 3	...	9 13 7	...	50 15 10	...	1 10 7
...	27 9 1	...	15 2 5	...	42 11 6	...	0 16 11
...	...	...	...	...	10 15 1	...	0 16 4
...	...	...	...	...	36 7 6	...	0 5 1
...	49 4 6	...	27 6 3	...	76 10 9	...	0 3 7
...	...	...	...	...	42 7 10	...	0 12 10
...	...	...	...	...	17 12 9	...	1 1 2
...	...	...	0 19 0	...	0 19 0	...	0 3 9
...	...	...	...	...	...	...	0 0 3



## PROVINCIAL

No	NAME OF HOSPITAL.	No. OF BEDS.		No. OF IN-PATIENTS.		EXPENDED ON MILK.	
		Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.
						£ s. d.	£ s. d.
44	Suffolk Hospital, Lowestoft...	...	30	...	209	...	67 4 11
45	Ramsgate Seamen's ...	...	30	...	163	...	...
46	Ventnor Consumption ...	...	140	...	603	...	454 18 0
47	Rochdale Infirmary ...	...	30	...	134	...	...
48	North Riding Infirmary ...	...	80	...	694	...	204 10 0
49	Oldham Infirmary ...	...	80	...	719	...	215 16 8
50	Wisbeach Cottage ...	...	26	...	147	...	35 14 2
51	Bournemouth National Sanatorium ...	...	60	...	272	...	255 2 11
52	Burnley—Victoria ...	...	56	...	522	...	206 8 1
53	Middlesboro' and North Ormesby...	...	46	...	513	...	137 10 10
54	Tunbridge Wells (General) ...	...	52	...	389	...	...
55	Bridgewater Infirmary ...	40	36	...	252	...	...
56	Taunton and Somerset Hospital ...	90	100	...	750	...	...
57	S. Staffordshire and G. H., Wolverhampton ...	...	100	...	1108	...	...
58	Royal United Hospital, Bath ...	120	120	...	1054	...	285 4 10
59	South Hants Infirmary, Southampton ...	110	100	...	974	...	151 13 9
60	Sussex County Hospital, Brighton ...	173	173	...	1228	...	555 10 4
61	Staffordshire General Infirmary ...	120	120	...	791	67 18 6	131 16 10
62	Ratcliffe Infirmary ...	143	138	...	1502	115 8 9	404 5 0
63	W. Sussex, E. Hampshire, Chichester Inf.	84	60	...	350	...	...
64	Bradford Infirmary ...	210	200	...	1961	...	499 0 0
65	General Infirmary, Gloucester ...	156	156	...	1368	106 9 2	259 18 4
66	Hospital, Yarmouth ...	30	32	...	240	...	...
67	Warneford and Leamington Hospital ...	60	120	...	1149	77 2 5	...
68	Huddersfield Infirmary ...	60	100	...	921	...	125 6 2
69	W. Herts and Hemel Hempstead Infirmary ...	33	50	...	366	...	...
70	Colchester General Hospital ...	94	100	...	619	29 17 4	135 14 3
71	County Hospital, Huntingdon ...	34	38	...	247	...	24 3 2
72	Stamford and Rutland General Infirmary ...	44	...	...	415	...	36 1 1
73	Torbay Infirmary ...	40	52	...	247	54 4 2	...
74	General Infirmary, Aylesbury ...	50	50	...	323	25 10 2	57 19 6
75	Stockport Infirmary ...	50	60	...	776	...	190 5 0
76	Borough Hospital, Birkenhead ...	50	60	...	496	23 15 8	154 18 8
77	Royal Dispensary and Infirmary, Windsor ...	16	30	...	261	...	...
78	General Hospital and Dispensary, Cheltenham ...	90	90	...	813	28 6 2	284 5 6
79	Royal Isle of Wight Infirmary ...	20	55	...	468	30 13 4½	166 4 7
80	General Infirmary, Hertford ...	35	40	...	344	33 13 11	85 13 0
81	Royal Infirmary and Dispensary, Manchester...	231	300	...	8085	224 12 11	948 3 6
82	District Hospital, Newark ...	22	33	...	120	7 8 3	50 17 11
83	Bolton Infirmary ...	20	106	...	867	...	351 5 1
84	District Hospital and Infirmary, Gravesend ...	15	30	...	326	...	...
85	General Hospital, Stroud ...	20	28	...	265	...	59 10 4
86	Infirmary, Bridgnorth ...	5	10	...	60	...	...
87	Royal Infirmary and Dispensary, Weymouth ...	10	16	...	85	...	...
88	Kidderminster Infirmary ...	12	45	...	427	...	...
89	Devonshire and Exeter Hospital ...	100	218	...	2459	...	...
90	Dover Hospital and Dispensary ...	16	25	...	123	...	...
91	East Sussex, Hastings and St. Leonard's Infy.	22	32	...	416	16 17 6	65 3 3
92	Salford and Pendleton Hospital and Infirmary ...	10	60	...	570	...	...
93	Stratford-on-Avon Infirmary ...	18	24	...	209	...	...
94	Teignmouth and Dawlish Infirmary ...	18	25	...	197	...	...
95	West Kent General Hospital, Maidstone ...	30	59	...	400	19 19 0	...
96	St. Mary's Hospital, Manchester ...	30	50	...	764	...	...
97	Coventry and Warwick Hospital ...	62	62	?	511	...	160 13 0
98	Peterborough Dispensary and Infirmary ...	20	42	...	307	15 19 11	99 0 9
99	East Cornwall and South Devon Hospital ...	119	130	...	987	...	...
100	East Suffolk and Ipswich Hospital and Dispnsy.	41	100	...	651	19 1 0	223 2 0
101	Sunderland & Bishopswearmouth Hosp. & Disp.	40	140	...	1707	...	...

HOSPITALS—continued.

EXPENDED ON WINE AND SPIRITS.		EXPENDED ON BEER AND PORTER, &C.		TOTAL SPENT FOR ALCOHOL.		COST OF ALCOHOL PER BED PER ANNUM.	
Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
...	...	...	...	...	27 2 8	...	0 18 1
...	...	...	...	...	4 0 6	...	0 2 8
...	155 7 0	...	...	...	155 7 0	...	1 2 2
...	...	...	...	...	15 17 3	...	0 10 6
...	45 0 9	...	8 7 2	...	53 7 11	...	0 13 4
...	26 10 1	...	25 7 2	...	51 17 3	...	0 12 11
...	...	...	...	...	24 13 0	...	0 19 0
...	15 8 10	...	69 3 4	...	84 12 2	...	1 8 2
...	...	...	...	...	24 16 10	...	0 8 8
...	...	...	...	...	91 1 4	...	1 19 7
...	...	...	...	...	46 5 3	...	0 17 9
...	...	...	...	53 16 3	37 10 0	1 6 11	1 0 10
...	...	...	...	...	and mineral water.	...	...
...	67 3 3	...	7 18 0	...	75 1 3	...	0 15 0
...	...	...	...	...	...	...	...
...	131 16 8	...	60 13 3	...	192 9 11	...	1 12 1
...	76 1 6	...	14 8 0	69 18 7	90 9 6	0 12 9	0 18 1
...	228 15 2	...	132 13 1	387 1 6	361 8 3	2 4 9	2 1 8
...	25 16 11	...	17 16 3	143 12 0	43 13 2	1 3 11	0 7 3
...	116 19 9	...	130 16 0	...	247 15 9	...	1 15 11
...	...	...	...	...	...	...	...
...	109 13 0	...	83 18 6	164 11 8	139 11 6	0 15 8	0 19 4
...	47 9 8	...	20 0 0	87 6 4	67 9 8	0 11 2	0 8 8
...	...	...	...	14 15 2	...	0 9 10	...
...	...	...	...	142 2 3	...	2 7 4	...
...	87 15 0	...	58 13 6	101 18 6	146 8 6	1 13 11	1 9 3
...	...	...	...	142 6 3	...	4 6 3	...
...	...	...	...	169 16 0	...	1 16 1	...
...	...	...	...	134 1 4	...	3 18 10	...
...	...	...	...	173 1 6	...	3 18 8	...
...	...	...	...	78 2 3	...	1 15 0	...
...	30 4 8	...	23 0 3	56 4 1	53 4 11	1 2 3	1 1 3
...	14 5 3	...	54 2 4	100 3 6	68 7 7	2 0 0	1 2 9
...	...	...	...	117 7 6	22 8 0	2 5 9	0 7 5
...	...	...	...	56 10 5	35 3 1	3 10 8	1 3 5
...	132 4 8	...	39 18 0	147 3 6	172 2 8	1 12 8	1 18 3
...	12 19 6	...	52 10 0	...	65 9 6	...	0 3 10
...	21 9 0	...	16 17 6	61 7 6	38 6 6	1 15 0	0 19 2
...	...	...	...	697 3 0	318 8 1	3 0 4	1 1 2
...	26 15 8	...	11 8 6	41 10 6	38 4 2	1 17 8	1 3 1
...	113 9 0	...	20 1 0	...	133 10 0	...	1 5 2
6 4 0	...	...	...	...	...	...	...
...	...	...	...	21 12 0	32 15 10	1 1 7	1 3 5
...	...	...	...	...	...	...	...
5 8 0	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	14 19 0	...	17 17 0	...	32 16 0	...	1 6 2
...	27 6 7	...	18 18 3	61 13 9	46 4 10	2 16 0	1 8 10
22 8 0	...	...	...	...	...	...	...
...	...	...	...	49 11 8	...	2 3 11	...
...	...	...	...	24 13 4	17 7 1	1 7 5	0 13 10
...	...	...	...	111 16 6	...	3 14 6	...
32 19 0	...	...	...	...	...	...	...
...	32 13 0	...	35 14 0	79 9 9	68 7 0	1 5 7	1 2 0
9 9 3	27 5 8	...	43 9 6	...	70 15 2	...	1 13 8
...	...	...	...	58 9 6	...	0 9 9	...
...	93 18 6	...	52 0 10	134 19 1	145 19 4	3 5 9	1 9 2
...	...	...	...	55 1 6	30 12 5	1 7 6	0 4 4

No.	NAME OF HOSPITAL.	No. OF BEDS.		No. OF IN-PATIENTS.		EXPENDED ON MILK.			
		Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.	Buckle, 1863.		Committee, 1888.	
						£	s.	d.	£ s. d.
102	Leeds Hospital, Women and Children ...	45	33	...	211	...	...	...	...
103	Liverpool Eye and Ear Infirmary...	24	44	...	717	...	...	...	...
104	Kent County Ophthalmic Hospital ...	33	40	...	300	...	...	...	17 11 3
105	Manchester General Hospital, Sick Children ...	25	140	...	1220	67	12	11	...
106	Newcastle-on-Tyne Dispensary ...	...	...	...	...	...	...	...	...
107	Carlisle Dispensary ...	...	...	...	...	...	...	...	...
108	Swansea Infirmary ...	113	130	...	883	...	...	...	...
109	Glamorganshire Infirmary and Dispensary ...	40	120	...	954	65	11	8	...
110	Carmarthen Infirmary ...	40	40	...	147	...	...	...	...
111	Carnarvonshire Infirmary and Dispensary ...	18	25	...	69	5	3	5	18 10 5
112	Pembroke and Haverfordwest Infirmary ...	10	21	...	74	...	...	...	...
113	Aberystwith and Cardiganshire ...	14	14	...	57	...	...	...	...
114	Brecknock General Infirmary ...	12	16	...	84	4	8	5	...
115	Devonport, Cornwall and West Devon Hospital ...	...	...	...	434	...	...	...	...
116	Salop Infirmary ...	140	...	...	1160	...	...	...	220 4 8
117	Blackburn and East Lancashire Infirmary ...	90	...	...	1392	...	...	...	...
118	West Norfolk and Lynn Hospital ...	52	52	357	402	66	4	10	82 0 10
119	Norfolk and Norwich Hospital ...	150	220	1087	1354	115	1	8	391 6 8
120	Lincoln County Hospital ...	100	105	821	816	62	12	0	298 3 6½
121	Hull Royal Infirmary ...	50	188	1161	1987	98	1	1	463 8 2
122	North Devon Infirmary ...	80	100	621	621	16	13	6	88 5 9
123	Bristol General Hospital ...	130	150	1538	2396	142	14	9	509 3 1
124	Royal Southern Hospital, Liverpool ...	112	200	1215	1728	168	11	0	844 15 6 (Includes butter and cheese.)
125	Cumberland Infirmary ...	42	100	453	703	105	13	6½	276 10 4
126	Derbyshire General Infirmary ...	100	175	999	1260	132	3	8	226 9 7
127	North Staffordshire Infirmary ...	129	213	1114	1690	127	12	8	448 15 0
128	Liverpool Royal Infirmary ...	240	117	2508	1661	322	15	6	639 18 8 (plus butter)
129	Liverpool Northern Hospital ...	125	155	1407	1736	277	5	3½	819 18 1 (plus butter, eggs, &c.)
130	Worcester General Infirmary ...	100	140	1025	1288	57	7	0	216 9 3
131	Newcastle Royal Infirmary ...	250	270	1611	3175	431	5	8	815 3 6
132	Leeds General Infirmary ...	142	320	1866	4943	153	3	6	822 3 6
133	Devon and Exeter Hospital...	220	218	1548	1398	84	12	11	441 9 9
134	Bristol Royal Infirmary ...	242	264	2962	3237	316	19	0	666 12 9
135	South Devon and East Cornwall Hospital ...	80	130	520	1125	28	11	3	332 10 0
136	Royal Portsmouth and Gosport Hospital ...	61	70	687	744	40	15	11	257 1 0
137	Salisbury Infirmary ...	100	100	990	803	58	1	1	240 8 2
138	Royal Cornwall Infirmary ...	60	50	459	313	49	10	9	133 3 6 (plus butter)
139	Leicester Infirmary ...	200	221	1422	2716	144	14	9	483 10 0
140	York County Hospital ...	100	132	746	1115	59	1	2	397 18 11
141	Hereford General Infirmary ...	100	87	632	530	40	2	11	132 17 10
142	Sheffield General Infirmary...	150	200	1273	1812	303	15	1	368 16 11
143	Kent and Canterbury Hospital ...	120	102	685	818	90	1	9	278 16 9
144	Halifax Infirmary ...	30	100	270	1030	48	10	7	250 13 0
145	Royal Berkshire Hospital ...	110	144	805	1151	81	0	3	278 10 3
146	Bedford General Infirmary ...	96	100	708	533	140	19	2	185 9 4
147	Durham County Hospital ...	48	70	293	445	...	...	...	162 5 0 (plus butter and eggs.)
148	Dorset County Hospital ...	60	50	512	352	60	6	3	93 7 6
149	Royal Hants County Hospital ...	120	110	754	621	60	1	10	168 16 8
150	North Herts and South Beds Infirmary ...	20	23	176	251	14	11	9	49 5 6
151	Chester General Infirmary ...	100	150	840	1090	63	11	9½	300 12 6
152	Birmingham General Hospital ...	240	280	2867	3859	316	2	0	857 8 6



HOSPITALS—continued.

EXPENDED ON WINE AND SPIRITS.		EXPENDED ON BEER AND PORTER, &c.		TOTAL SPENT FOR ALCOHOL.		COST OF ALCOHOL PER BED PER ANNUM.	
Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
...	...	...	...	...	...	...	...
...	...	...	...	46 6 11	...	1 8 1	...
...	...	...	...	...	...	...	...
...	...	...	...	6 16 9	...	...	...
...	...	...	...	23 15 3	...	0 4 2	...
...	...	...	...	118 1 6	...	2 19 0	...
...	...	...	...	...	17 12 4	...	0 8 9
...	...	...	...	35 8 10	26 0 6	1 19 4	1 0 9
...	...	...	...	...	5 7 6	...	0 5 1
...	...	...	...	...	...	...	...
...	...	...	...	9 18 6	...	0 16 6	...
...	85 10 9	...	23 2 0	80 8 0	58 12 9	...	...
...	79 14 1	...	81 8 0	155 10 5	161 2 1	...	1 3 0
...	80 0 0	...	32 7 10	130 7 1	112 7 10	...	1 4 11
39 18 0	58 5 6	153 19 6	85 13 10	193 17 6	143 19 4	3 14 6 $\frac{1}{2}$	2 15 4 $\frac{1}{2}$
98 10 0	123 4 0	231 8 0	157 2 5	329 18 0	280 6 5	2 3 11 $\frac{1}{2}$	1 5 5 $\frac{1}{2}$
129 13 6	101 10 0	107 15 4	49 3 0	237 8 10	150 13 0	2 7 5 $\frac{1}{2}$	1 8 8 $\frac{1}{2}$
72 3 6	73 15 3	154 15 3	42 9 2	226 18 9	116 4 5	1 10 3	0 12 4 $\frac{1}{2}$
16 10 11	50 8 0	52 16 4	20 12 3	69 7 3	71 0 3	0 17 4	0 14 2 $\frac{1}{2}$
149 3 0	91 11 5	88 18 3	143 4 2	238 1 3	234 15 7	1 16 7	1 11 3 $\frac{1}{2}$
75 10 0	126 10 0	88 6 6	79 19 0	163 16 6	206 9 0	1 9 3	1 0 7 $\frac{1}{2}$
...	...	...	...	...	...	...	...
...	52 2 6	...	2 0 0	78 18 2	54 2 6	1 17 7	0 10 10
...	57 16 2	...	107 9 0	276 10 0	165 5 2	2 15 3 $\frac{1}{2}$	0 18 10 $\frac{3}{4}$
107 0 9	43 16 3	199 19 10	165 9 9	307 0 7	209 6 0	2 7 7 $\frac{1}{2}$	0 19 2 $\frac{1}{2}$
247 10 4	213 14 4	239 1 5	85 8 10	486 11 9	299 3 2	2 0 0 $\frac{1}{2}$	2 11 1 $\frac{1}{2}$
355 11 6	192 6 6	274 5 4 $\frac{1}{2}$	63 16 8	629 16 10 $\frac{1}{2}$	256 3 2	5 0 9 $\frac{1}{2}$	1 13 0 $\frac{3}{4}$
...	...	...	...	...	...	...	...
70 8 0	106 2 6	116 19 0	34 10 0	187 7 0	140 12 6	1 17 5 $\frac{1}{2}$	1 0 1
175 9 0	106 13 0	130 10 4	53 9 11	305 19 4	160 2 11	1 4 5 $\frac{1}{2}$	0 11 10 $\frac{1}{2}$
176 10 6	88 15 6	293 11 3	59 4 8	470 1 9	148 0 2	3 6 2 $\frac{1}{2}$	0 9 3
183 14 0	214 18 9	268 15 0	86 7 9	453 9 0	301 6 6	2 2 1 $\frac{1}{2}$	1 7 7 $\frac{3}{4}$
158 12 6	179 11 0	205 8 0	51 4 10	364 0 6	230 15 10	1 1 9 $\frac{1}{2}$	0 17 5 $\frac{1}{2}$
...	...	...	...	99 7 3	48 15 11	1 4 9	0 7 6
...	69 14 0	...	64 5 7	165 16 11	133 19 7	2 14 4 $\frac{1}{2}$	1 18 3 $\frac{1}{2}$
88 0 0	68 7 11	137 3 11	37 4 1	225 3 11	106 12 0	2 5 0 $\frac{1}{2}$	1 1 3 $\frac{3}{4}$
8 11 6	6 16 0	22 13 1	1 19 0	31 4 7	8 15 0	0 10 5	0 3 6
...	...	...	...	...	...	...	...
...	111 16 0	...	65 3 0	360 14 0	176 19 0	1 16 0 $\frac{3}{4}$	0 16 0
77 6 6	70 3 0	102 1 10	13 10 3	179 8 4	83 13 3	1 15 10 $\frac{1}{2}$	0 12 8
73 2 2	34 5 6	153 15 1	101 9 1	226 17 3	135 14 7	2 5 4 $\frac{1}{2}$	1 11 2 $\frac{1}{2}$
327 11 9	193 14 0	224 5 0	158 16 5	551 16 9	352 10 5	3 13 7	1 15 3
78 2 6	77 15 10	137 5 9	70 10 3	215 8 3	148 6 1	1 15 10 $\frac{3}{4}$	1 9 1
21 14 6	34 2 6	49 8 10	8 10 6	71 3 4	42 13 0	2 7 4	0 8 6 $\frac{1}{2}$
113 19 8	38 5 6	218 4 0	70 19 7	332 3 8	109 4 3	3 0 4 $\frac{1}{2}$	0 15 2
32 10 0	46 8 10	177 13 9	21 11 2	210 3 9	68 0 0	2 3 9 $\frac{1}{2}$	0 13 7 $\frac{1}{2}$
...	...	...	...	...	59 12 0	...	0 17 0 $\frac{1}{2}$
...	...	...	...	...	...	...	...
51 19 0	17 0 9	86 9 4	19 11 6	138 8 4	36 12 3	2 6 1 $\frac{1}{2}$	0 14 7 $\frac{3}{4}$
61 11 4	33 14 0	137 10 8	47 10 0	199 2 0	81 4 0	1 3 2 $\frac{1}{2}$	0 14 9
22 3 3	25 1 6	55 4 4	34 4 6	77 7 7	59 6 0	3 2 1	2 11 6 $\frac{1}{2}$
85 17 6	67 6 7	104 15 6	2 6 0	190 13 0	69 12 7	1 18 1 $\frac{1}{2}$	0 9 3 $\frac{1}{2}$
491 11 0	172 0 0	298 12 0	222 4 3	790 3 0	394 4 3	3 5 1	1 8 2

## HOSPITALS

No.	NAME OF HOSPITAL.	No. OF BEDS.		No. OF IN-PATIENTS.		EXPENDED ON MILK.	
		Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.	Buckle, 1863.	Committee, 1888.
						£ s. d.	£ s. d.
153	Edinburgh Royal Infirmary ... ..	...	700	...	8810	...	2397 10 0
154	Edinburgh Royal Hospital for Children ... ..	...	60	...	685	...	...
155	Glasgow Royal Infirmary ... ..	...	550	...	5043	...	987 11 0
156	Glasgow Western Infirmary ... ..	...	420	...	3961	...	1323 0 3
157	Dundee Royal Infirmary ... ..	...	250	...	2095	...	435 6 4
158	Dumfries and Galloway Royal Infirmary ... ..	...	96	...	425	...	114 14 9
159	Greenock Infirmary ... ..	...	110	...	1081	...	317 7 1
160	Aberdeen Royal Infirmary ... ..	...	170	...	2310	...	502 9 2
161	Perth Royal Infirmary ... ..	...	60	...	693	...	233 0 2

## HOSPITALS

162	Belfast Royal ... ..	...	165	...	2236	...	...
163	Cork South Charitable Infmy. and County Hosp. ... ..	...	60	...	954	...	...

The number of hospitals dealt with in Table I. is 163, and the conclusions drawn from it by your Committee are very much the same as those in a letter to Dr. Morton from Dr. Fleetwood Buckle, on June 1st, 1889, in which he says:—"I fear the same irregularities in the expenditure of charitable funds are still due in a large measure to a want of control of, or careful supervision of, the wine accounts, which practically means waste of subscribers' money, and largely increased sick rate, all over the world." No one can doubt, however, that two facts are clearly established by the table, in the vast majority of cases, namely, the largely increased consumption of milk, over 300 per cent. increase; and the marked decrease in the consumption of alcohol in 1888, as compared with that of 1863, about 47 per cent. decrease.

Table II. contains a list of hospitals whose reports were forwarded to the Committee for the year 1888, but of which they

IN SCOTLAND.

EXPENDED ON WINE AND SPIRITS.		EXPENDED ON BEER AND PORTER, &c.		TOTAL SPENT FOR ALCOHOL.		COST OF ALCOHOL PER BED PER ANNUM.	
Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.	Buckle, 1863.	Com- mittee, 1888.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
...	484 17 2	...	21 10 6	...	506 7 8	...	0 14 6
...	...	...	...	...	32 1 2	...	0 10 8
...	212 5 8	...	144 12 4	...	356 18 0	...	0 13 0
...	272 8 6	...	25 17 9	...	298 5 3	...	1 2 10
...	125 15 8	...	5 7 8	...	134 3 4	...	0 10 8
...	...	...	...	...	40 9 3	...	0 8 5
...	...	...	...	...	77 13 1	...	0 14 1
...	...	...	...	...	153 16 6	...	0 18 8
...	...	...	...	...	25 17 9	...	0 8 7

IN IRELAND.

...	...	...	...	...	141 0 9	...	0 17 1
...	...	...	...	...	74 6 2	...	1 4 9
					TOTALS ...	£194 6 11½	£143 4 6¾

have no 1863 record with which to compare them. On this table, therefore, your Committee report that on taking the same ratio as that shown by Dr. Buckle for 1863, the total cost of alcohol per bed would have been £147 2s. 5d., taking all the hospitals, and as the actual cost in 1888 was £57 12s. 6¼d., there is a decrease at the rate of 60·8 per cent. As these hospitals number 60 out of a total of 163 dealt with by the Committee, we think that this estimated decrease in the consumption of alcohol of 60·8 per cent. may be relied upon as being a fairly accurate statement of the actual state of affairs, particularly when it is compared with Table I., and also with the following one, Table III.; but, as we have been careful to point out, it is an approximate, and not an absolute estimate. Its value is not materially diminished on that account, as it proves that there is a distinct improvement in 1888, as compared with the amount of hospital consumption of alcohol in 1863.



TABLE II.—HOSPITALS OF WHICH THE COMMITTEE  
COULD FIND NO PREVIOUS RECORD.—1888.

No.	NAME OF HOSPITAL.	No. OF BEDS.	£	s.	d.
1	Guy's ... ..	500	0	13	8
2	Middlesex ... ..	310	0	18	10
3	University College ... ..	209	3	7	2
4	St. Thomas' ... ..	433	2	0	5
5	Richmond ... ..	40	2	19	8
6	Seamen's, Greenwich ... ..	250	1	6	3
7	Metropolitan ... ..	51	0	17	9
8	Samaritan, for Women and Children ... ..	52	1	16	7
9	For Women, Soho Square ... ..	66	2	5	0
10	For Women and Children, Leeds ... ..	42	0	10	9
11	Devon and Torbay ... ..	52	0	2	1
12	Isle of Man General ... ..	24	0	8	2
13	Preston and County of Lancashire Royal Infirmary ... ..	100	1	6	5
14	West Bromwich District ... ..	50	1	4	4
15	Manchester Royal Eye ... ..	100	0	2	10
16	Bradford Ear and Eye ... ..	45	0	7	8
17	Dudley Guest Hospital ... ..	75	0	17	9
18	Guildford Royal Surrey County ... ..	96	1	10	7
19	Burton-on-Trent General Infirmary ... ..	60	0	16	11
20	Wakefield, Clayton ... ..	52	0	16	4
21	Walsall Cottage ... ..	42	0	5	1
22	North Wales—Rhyl Royal Alexander ... ..	200	0	3	7
23	South Warwick, Warnford, and Leamington ... ..	119	0	12	10
24	Bury Dispensary ... ..	40	1	1	2
25	Scarboro' North Sea Bathing Hospital ... ..	93	0	3	9
26	Harrowgate Bath Hospital ... ..	75	0	0	3
27	Suffolk Hospital, Lowestoft ... ..	30	0	18	1
28	Ramsgate (Seamen's) ... ..	30	0	2	8
29	Ventnor, for Consumption ... ..	140	1	2	2
30	Rochdale Infirmary ... ..	30	0	10	6
31	North Riding Infirmary ... ..	80	0	13	4
32	Oldham Infirmary ... ..	80	0	12	11
33	Wisbeach Cottage ... ..	26	0	19	0
34	Bournemouth National Sanatorium ... ..	60	1	8	2
35	Burnley Victoria ... ..	56	0	8	8
36	Middlesboro' and North Ormesby ... ..	46	1	19	7
37	Tunbridge Wells (General) ... ..	52	0	17	9
38	Taunton and Somerset ... ..	100	0	15	0
39	Royal United Hospital, Bath ... ..	120	1	12	1
40	Ratcliffe Infirmary ... ..	138	1	15	11
41	Royal Isle of Wight Infirmary ... ..	55	0	3	10
42	Bolton Infirmary ... ..	106	1	5	2
43	Dover Hospital and Dispensary ... ..	25	1	6	2
44	Peterboro' Dispensary and Infirmary ... ..	42	1	13	8
45	Carmarthen Infirmary ... ..	40	0	8	9
46	Pembroke and Haverfordwest Infirmary ... ..	21	0	5	1
47	Salop Infirmary ... ..	140	1	3	0
48	Blackburn and East Lancashire Infirmary ... ..	90	1	4	11
49	Edinboro' Royal Infirmary ... ..	700	0	14	6
50	Edinboro' Royal Hospital for Children ... ..	60	0	10	8
51	Glasgow Royal Infirmary ... ..	550	0	13	0
52	Glasgow Western Infirmary ... ..	420	1	2	10
53	Dundee Royal Infirmary ... ..	250	0	10	8
54	Dumfries and Galloway Infirmary ... ..	96	0	8	5
55	Greenock Infirmary ... ..	110	0	14	1
56	Aberdeen Royal Infirmary ... ..	170	0	18	8
57	Perth Royal Infirmary ... ..	60	0	8	7
58	Belfast Royal Hospital ... ..	165	0	17	1
59	Cork South Charitable Infirmary and County Hospital ... ..	60	1	4	9
60	Durham County Hospital ... ..	70	0	17	0½
		7,394	£57	12	6½

On the same Rates as shown in Buckle, the total cost per bed would have been £147 2s. 5d.; hence there is a decrease at the rate of 60·8 per cent.

Table III. shows the average cost of alcohol per bed in hospitals and infirmaries, of which a return was made by Dr. Buckle in 1863, as compared with the statistics now tabulated by the Committee from the hospital reports of 1888.

In 1888 the cost of alcohol per bed per annum shows a decrease varying from 30 to 83 per cent. on the cost per bed in 1863. Out of seventy-three hospitals thus compared only seven show an increase in the cost of alcohol, but only one of these shows a marked increase, namely, the Stanley Hospital, Liverpool, from 7s. 3d. in 1863 to 19s. 6d. in 1888. In the other six cases the increase is not very great, viz., Royal Free Hospital, London, from £2 5s. 3d. to £2 8s. 3d.; the South Hants Infirmary, from 12s. 9d. to 18s. 1d.; Bradford Infirmary, from 15s. 8d. to 19s. 4d.; Cheltenham General Hospital and Dispensary from £1 12s. 8d. to £1 18s. 3d.; Stroud General Hospital, from £1 1s. 7d. to £1 3s. 5d.; and the Liverpool Royal Infirmary from £2 os. 6½d., to £2 11s. 1½d.

Of the seventy-three hospitals noted in this table, there has been an increase of 2,103 beds, or 25 per cent., whilst the total of the average cost of alcohol per bed for the same period has decreased by £78 3s. 5d., or 47 per cent. In King's College Hospital the expenditure on alcohol per bed per annum has gone down from £7 14s. 1d. in 1863 to £1 8s. 8d. in 1888, and in St. Mary's Hospital from £5 19s. 2d. in 1863 to £2 os. 6d. in 1888; and at the other end of the scale in the Royal Cornwall Infirmary from 10s. 5d. per bed per annum in 1863 to 3s. 6d. in 1888; and in the Sunderland and Bishopswearmouth Hospital and Dispensary from £1 7s. 6d. in 1863 to 4s. 4d. in 1888. In the case of the last-named hospital we bring forward as an appendix to this report a remarkable and interesting correspondence on "The Use of Alcohol in Sunderland and Newcastle-upon-Tyne Infirmaries," between Mr. Thomas Robinson, secretary to the Sunderland Infirmary and Dr. G. H. Philipson, chairman of the Medical Board of the Newcastle-upon-Tyne Infirmary, which, without any comment from us, speaks for itself.

Besides the interesting instances we have culled from Table III., showing briefly the changes which have taken place in the administration of alcohol during the past twenty-five years, want of time and space prevents us from going more fully into the details of the tables we have compiled, but which you will doubtless study, analyse, and compare for yourselves, although we should have wished to have made much more extended comments upon them. They all show, however, that with a very few exceptions, which we have already given, there has been a marked decrease in the administration of alcohol, equal to about 47 per cent., which, though very gratifying, there is no reason to doubt,

from the experience of the London Temperance Hospital, the Royal Cornwall Infirmary, the Sunderland Infirmary, and many others, might very well be still further reduced, either to a minimum, or, as in the case of St. George's, Hanover Square, workhouse infirmary, and the London Temperance Hospital, possibly dispensed with altogether. Though our researches prove that things have mended, they are not ended, and there is yet much room for far greater improvement than we have been able to record.

It will be observed that we have no returns from St. Bartholomew's Hospital, the secretary informing us that no returns are published; but we find in the *Medical Temperance Journal* for October, 1887, page 9, that Dr. C. R. Drysdale, an esteemed member of our Council, states that "in St. Bartholomew's Hospital, one of the largest in London, milk cost in 1852 the sum of £684, and in 1882, £2,012; whereas alcohol cost in Bartholomew's in 1852, £406; in 1862, £1,446; in 1872, £1,446; and in 1882, £953. Only one hospital in London, St. George's, still maintains its quantity of alcohol, and had in 1872 a high death-rate among its typhoid fever patients of 24 per cent., or similar to that cited by Dr. Todd; whilst the mortality of the fever patients treated by Dr. Gairdner with milk at the Glasgow Fever Hospital in 1871 had only a mortality of 12 per cent." The London Fever Hospital has evidently taken the scientific side in this matter; for whereas, in 1863, with 200 beds, and 2,217 in-patients, as compared with 190 beds, and 982 in-patients in 1888, or less than half the number of in-patients in 1863, the milk-bill was only £5 less, or £287 11s. od., as against £293 11s. 2d. in 1863; but the bill for alcohol was £150 8s. 2d. in 1888 as against £650 2s. 9d. in 1863, or 15s. 9d. per bed in 1888 as against £3 5s. od. per bed in 1863. We recommend this fact to the notice of other hospital authorities. The Committee has not, however, entered into the question of relative mortality, but confined their tables to that of the relative consumption of wines, beer and spirits in hospitals.



TABLE III.—SHOWING COMPARATIVE COST OF ALCOHOL PER BED IN 1863 AND 1888 RESPECTIVELY.

NAME OF HOSPITAL.	No. of Beds.		1863.	1888.
	1863.	1888.		
			£ s. d.	£ s. d.
London ... ..	445	776	3 2 6	1 0 9
St. George's ... ..	350	351	3 8 9	2 18 10
St. Mary's... ..	150	279	5 19 2	2 0 6
King's College ... ..	152	206	7 14 1	1 8 8
Westminster ... ..	191	205	3 7 0	1 4 7
Charing Cross ... ..	125	175	3 4 3	1 14 10
Royal Free ... ..	150	150	2 5 3	2 16 0
Great Northern Central ... ..	50	53	1 13 10	1 3 11
London Fever ... ..	200	190	3 5 0	0 15 9
Great Ormond Street for Sick Children ... ..	52	179	2 10 8	0 8 6
For Consumption—Brompton ... ..	210	321	3 3 3	2 16 4
Victoria Park ... ..	72	164	2 19 5	1 10 1
Salford and Pendleton Royal Hospital ... ..	10	60	2 4 9	0 18 9
Queen's Hospital, Birmingham ... ..	180	120	3 5 6	1 11 1
Stratford-upon-Avon ... ..	18	24	2 15 0	1 1 8
Stanley Hospital, Liverpool ... ..	104	70	0 7 3	0 19 6
Chesterfield and North Derby ... ..	40	40	0 10 7	0 10 4
Bridgewater Infirmary ... ..	40	36	1 6 11	1 0 10
South Hants Infirmary ... ..	110	100	0 12 9	0 18 1
Sussex County Hospital, Brighton... ..	173	173	2 4 9	2 1 8
Staffordshire General Infirmary ... ..	120	120	1 3 11	0 7 3
Bradford Infirmary ... ..	210	200	0 15 8	0 19 4
General Infirmary, Gloucester ... ..	156	156	0 11 2	0 8 8
Huddersfield Infirmary ... ..	60	100	1 13 11	1 9 3
General Infirmary, Aylesbury ... ..	50	50	1 2 3	1 1 3
Stockport Infirmary ... ..	50	60	2 0 0	1 2 9
Birkenhead Borough Hospital ... ..	50	60	2 5 9	0 7 5
Windsor Royal Dispensary and Infirmary ... ..	16	30	3 10 8	1 3 5
Cheltenham General Hospital and Dispensary... ..	90	90	1 12 8	1 18 3
Hertford General Infirmary ... ..	35	40	1 15 0	0 19 2
Manchester Royal Infirmary and Dispensary ... ..	231	300	3 0 4	1 1 2
Newark District Hospital ... ..	22	33	1 17 8	1 3 1
Stroud General Hospital ... ..	20	28	1 1 7	1 3 5
East Sussex, Hastings and St. Leonards Infirmary ... ..	22	32	2 16 0	1 8 10
Teignmouth and Dawlish ... ..	18	25	1 7 5	0 13 10
Coventry and Warwick ... ..	62	62	1 5 7	1 2 0
East Suffolk and Ipswich Hospital and Dispensary ... ..	41	100	3 5 9	1 9 2
Sunderland and Bishopwearmouth Hosp. and Disp. ... ..	40	140	1 7 6	0 4 4
Carnarvonshire Infirmary and Dispensary ... ..	18	25	1 19 4	1 0 9
West Norfolk and Lynn ... ..	52	52	3 14 6	2 15 4
Norfolk and Norwich ... ..	150	220	2 3 11	1 5 5
Lincoln County ... ..	100	105	2 7 5	1 8 8
Hull Royal Infirmary ... ..	150	188	1 10 3	0 12 4
North Devon Infirmary ... ..	80	100	0 17 4	0 14 2
Bristol General Hospital ... ..	130	150	1 16 7	1 11 3
Royal Southern Hospital, Liverpool ... ..	112	200	1 9 3	1 0 7
Cumberland Infirmary ... ..	42	100	1 17 7	0 10 10
Derbyshire General Infirmary ... ..	100	175	2 15 3	0 18 10
North Staffordshire Infirmary ... ..	129	213	2 7 7	0 19 2
Liverpool Royal Infirmary ... ..	240	117	2 0 6	2 11 1
Liverpool Northern Hospital ... ..	125	155	5 0 9	1 13 0
Worcester General Infirmary ... ..	100	140	1 17 5	1 0 1
Newcastle Royal Infirmary ... ..	250	270	1 4 5	0 11 10
Leeds General Infirmary ... ..	142	320	3 6 2	0 9 3
Devon and Exeter Hospital ... ..	220	218	2 2 1	1 7 7
Bristol Royal Infirmary ... ..	242	264	1 1 9	0 17 5
South Devon and East Cornwall Hospital ... ..	80	130	1 4 9	0 7 6
Royal Portsmouth and Gosport ... ..	61	70	2 14 4	1 18 3
Salisbury Infirmary ... ..	100	100	2 5 0	1 1 3
Royal Cornwall Infirmary ... ..	60	50	0 10 5	0 3 6

TABLE III.—*continued.*

NAME OF HOSPITAL.	No. of Beds.		1863.			1888.		
	1863.	1868.						
Leicester Infirmary ... ..	200	221	£	s.	d.	£	s.	d.
York County Hospital... ..	100	132	1	16	0 $\frac{3}{4}$	0	16	0
Hereford General Infirmary... ..	100	87	1	15	10 $\frac{1}{2}$	0	12	8
Sheffield General Infirmary ... ..	150	200	2	5	4 $\frac{1}{2}$	1	11	2 $\frac{1}{2}$
Kent and Canterbury Hospital ... ..	120	102	3	13	7	1	15	3
Halifax Infirmary ... ..	30	100	1	15	10 $\frac{3}{4}$	1	9	1
Royal Berkshire Infirmary ... ..	110	144	2	7	4	0	8	6 $\frac{1}{4}$
Bedford General Infirmary ... ..	96	100	3	0	4 $\frac{3}{4}$	0	15	2
Dorset County Hospital ... ..	60	50	2	3	9 $\frac{1}{2}$	0	13	7 $\frac{1}{2}$
Royal Hants County ... ..	120	110	0	14	7 $\frac{3}{4}$	0	14	7 $\frac{3}{4}$
North Herts and South Bedford Infirmary ... ..	32	23	1	3	2 $\frac{1}{4}$	0	14	9
Chester General Infirmary ... ..	100	150	3	2	1	2	11	6 $\frac{3}{4}$
Birmingham General Hospital ... ..	240	280	1	18	1 $\frac{1}{2}$	0	9	3 $\frac{1}{2}$
	8256	10359	£165	13	7 $\frac{1}{2}$	£86	2	0 $\frac{1}{2}$

Increase of beds = 2,103.

Decrease of total average cost of Alcohol per bed = £78 3s. 5d.

Beds have increased at rate of 25 per cent.

Cost of Alcohol has decreased at the rate of 47 per cent.

In drawing this report to a close, the Committee express themselves extremely grateful to many secretaries of hospitals who have supplied them with most valuable and interesting statistics, suggestions and information, in addition to the hospital reports they so kindly forwarded. Many of these letters would be of much service if they were published, as giving the large experience of gentlemen (some in the medical profession although most of them not), officially connected with our great hospitals and infirmaries; nearly every one stating that the decreased use of alcohol has led to a largely beneficial increase in the usefulness of the hospital, whilst some excuse the apparent largeness of the amount of alcohol by pleas, which are, if not valid altogether, at least a little explanatory, and in one instance even amusing, where a well-known medical gentleman writes us:—"Even in the eyes of abstainers like myself our consumption of alcohol is *very* moderate; indeed, I do not think any alcohol has been given of late except in cases of accident and primary amputation. I applied to the treasurer on the subject, but find that most of the beer appearing in the account goes to the washerwoman! and not the patients." In many cases alcohol is not now provided for officials and servants, but has been strictly limited to the patients. Others say that when the stimulants are down, milk and eggs go up in greater proportion, with satisfactory results. The work undertaken by us in preparing this report has been a pleasing one, and on the whole we are not dissatisfied with the progress that is being made in our hospitals and infirmaries in

the rational administration of alcohol as a drug and not as a drink, bearing out as it does the similar decrease in workhouses, unions, infirmaries, and lunatic asylums, so far as can be gathered from the latest statistics.

Appendix. "The Use of Alcohol in Sunderland and Newcastle-upon-Tyne Infirmaries."\*

T. MORTON, M.D.,  
JOHN MOIR,  
WALTER PEARCE, M.D.



\* This pamphlet contains some correspondence between Mr. Thomas Robinson, Secretary of the Sunderland Infirmary, and Dr. George Hare Philipson, Chairman of the Medical Board of the Newcastle Infirmary, regarding the use of alcohol in those institutions. It appears that the cost of alcohol at Sunderland had for years been much less than in the Newcastle Infirmary, and that Dr. Philipson accounted for the difference by stating that the number of surgical cases requiring alcohol had greatly increased in Newcastle; and he also said that the mortality at Sunderland had become greater since the consumption of alcohol was lessened. In reply to these allegations, Mr. Robinson furnishes a series of tables, showing that the character of the accidents and the surgical cases is very much the same in both infirmaries, and that the Sunderland mortality has not increased, as alleged. The average number of admissions and deaths during ten years (1876-1885) was—Sunderland, 953·7 admissions, 4·51 deaths; Newcastle, 1866·9 admissions, 7·82 deaths. The *Medical cases* were—Sunderland, admissions, 302·4, 4·66 deaths; Newcastle, 629·7 admissions, 12·32 deaths. The *Surgical cases*, including accidents, were—Sunderland, 633·3 admissions, 4·45 deaths; Newcastle, 1226·9 admissions, 5·58 deaths. The *Operations* were—Sunderland, 296 admissions, 2·43 deaths; Newcastle, admissions, 434·9, deaths 4 per cent. We cannot spare room for the whole of the tables; but append the one relating to alcohol, which shows that "in 1875, when the cost for stimulants in Newcastle Infirmary was 4s. 10½d. per patient, and 52s. 2½d. per occupied bed, the death-rate for accidents was 16·75, and for operations 11·71 per cent."

**COST FOR STIMULANTS.**  
(*Inclusive of amount for Soda Water.*)

**SUNDERLAND INFIRMARY.**

Year ending 30th June.	Amount.	No. of In- Patients.	Average No. of Beds occu- pied daily.	Cost per Patient.	Cost per occu- pied Bed.
	£ s. d.			s. d.	s. d.
1876	72 16 0	529	64	2 9'02	22 9'00
1877	29 11 6	538	60	1 1'10	9 10'30
1878	32 16 0	563	65'7	1 1'98	9 11'81
1879	38 5 0	618	73'5	1 2'85	10 4'90
1880	42 8 5	787	90'2	1 0'93	9 4'82
1881	36 18 0	966	97'4	0 9'16	7 6'92
1882	51 17 0	1070	101'3	0 11'63	10 2'84
1883	68 8 11	1366	104'1	1 0'02	13 1'80
1884	56 1 8	1482	119'4	0 9'08	9 4'73
1885	28 9 10	1438	120'7	0 4'75	4 8'64
Average per year.	45 15 3	935'7	89'62	0 11'73	10 2'55

**NEWCASTLE-ON-TYNE INFIRMARY.**

Year.	Amount.	No. of In- Patients.	Average No. of Beds occu- pied daily.	Cost per Patient.	Cost per occu- pied Bed.
	£ s. d.			s. d.	s. d.
1875	409 13 7	1679	160	4 10'56	51 2'52
1876	338 6 2	1630	163	4 1'81	41 6'12
1877	403 5 6	1505	186	5 3'31	43 4'35
1878	283 8 1	1616	181	3 6'09	31 3'78
1879	397 5 3	1865	194	4 3'12	40 11'46
1880	260 1 5	1926	203	3 0'14	28 6'94
1881	288 19 5	1821	213	3 2'08	27 1'60
1882	208 0 9	1941	208'75	2 1'72	19 11'18
1883	249 11 1	2108	215'76	2 4'41	23 1'59
1884	358 0 9	2578	219'5	2 9'33	32 7'47
Average per year.	322 13 2	1866'9	194'4	3 5'48	33 2'34



## Miscellaneous Communications.

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### THE USE OF ALCOHOL IN MEDICINE.\*

By J. M. FARRINGTON, M.D., *Binghamton, N.Y.*

THE subject of this paper is probably the oldest and most conspicuous article that has a place in the history of medicine. We read of it early both in sacred and secular history, not so much as a remedy in the treatment of disease, but as a beverage that from those early periods of the world's history down all along these ages to the present time has had more influence in the events chronicled by historians than have any or possibly all other causes combined. Noah planted a vineyard, and got drunk from his home-made wine, and notoriously disgraced himself. Alexander the Great, the most illustrious general the world ever saw, died a delirious sot at the age of thirty-three. The wine indulged in by kings, statesmen, and generals, has been productive of many wars that have cost millions of lives and the destruction of untold treasures, and have changed the boundaries of many of the nations of our world. In the domain of private and social life its power has been no less marked. The effects of alcohol upon the physical, mental, and moral powers of man, are beyond estimation or computation. The flood-tide of evils that flow from its use has long been recognised and acknowledged by every unprejudiced observer. In fact, alcohol is to-day the greatest power known to the world that is constantly operating to dethrone reason, shatter the physical system, and bring on moral and financial ruin. The amount of alcohol consumed by the civilised nations of the world is almost beyond computation, and the avarice of man is introducing it into heathen and bar-

barous regions as rapidly as commerce and the work of explorers will permit. It has grown to be such an important article of commerce that its manufacturers and dealers are now an important factor in the political and law-making power of not only our commonwealth, but of every nation under the sun. The liquor oligarchy are dictators in many matters of political policy.

Thus much as a brief introduction to the power and influence of the subject of this essay. As conservators of the lives of our fellow-men, it behoves us to most seriously consider an agent capable of producing such devastating results before we "unchain the tiger," who, when once upon his victim, may never relinquish his grasp until all that is pure and noble, all that is wise and good, all that is lovely and desirable, has been drained from our brother-man, leaving only a bloated carcase and a curse, whose friends painfully endure until death comes to rid them of the living shame, when his poor debased body has been buried from their sight, and their hearts are torn by the solemn thought that "no drunkard can inherit the kingdom of heaven."

Before beginning this paper I most carefully read the views of those authors who furnish the text books on *materia medica* and *therapeutics* for the medical students of to-day, and then I did not wonder why it was that alcohol still held such a sway in our profession and among the laity, who naturally look to us as authority in this matter of the value of alcohol. For one, who has witnessed the action of this agent on the human system for thirty-two years in the practice of medicine, I earnestly protest against

\* Read before the Medical Society of the County of Broome, N.Y.

the teachings of most of our recognised authorities on this subject; to me their language and inferences are more befitting circulars issued by liquor dealers and manufacturers to advertise and recommend the great value of their products to enfeebled and diseased humanity. I quote first from Bartholow:—"Alcohol is a useful food in the small quantity which increases but does not impair digestion, which quickens the circulation and gland secretion, but does not over-stimulate, and which is within the limit of the power of the organism to dispose of by the oxidation processes." Oh, how habitual and so-called "moderate drinkers" will applaud this language, and how grateful, perhaps, we ought to be that there is one so wise as to state just how much and how often we should use this valuable and health-giving medicine! Hear our author still further: "The amount has been pretty accurately shown," says Bartholow, "to be one ounce to  $1\frac{1}{2}$  oz. absolute alcohol for a healthy adult in twenty-four hours. All excess is injurious. . . . It is equally true that alcohol is, within certain limits, a food, and that the organism may subsist for a variable period on it exclusively." I take exceptions to all of these statements by this eminent author, and I can sustain my position by Dr. Benjamin W. Richardson, the eminent physician and author of London, who has been a close and able observer and scientific investigator of the influence and effects of alcohol. The results of the scrutinising investigations of this distinguished physiologist and physician (though in some quarters disputed and their resultant teachings disregarded) have shown that the allegation that "alcohol is food" is not a fact; that it contains no element to nourish or repair the physical organism, and that the impression that formerly existed—that it was of value to burn in the body and increase the temperature of the body when below par—is likewise a great delusion; for it has been proved again and again that the body will withstand cold and exposure far better without the alcohol than with

it. We know that the first effect of alcohol is to increase the action of the heart and elevate the temperature, but that subsequently the temperature of the body falls lower than it was at first, and that the ultimate result is to lower the temperature—a reaction from the perturbing action produced by the stimulant—and that is why a drunken man freezes quickly when falling by the wayside undiscovered until too late to save him. We now turn to Bartholow again; we quote as follows:—"Alcohol in small doses is a useful stomachic tonic. It is best taken for this purpose after or with meals. It is especially serviceable in the feeble digestion of old people, the atonic dyspepsia of the sedentary, and in the slow and inefficient digestion of convalescence from acute disease." Against all this, with due respect for our truly illustrious author, I take positive and decided issue. They are, in my humble judgment, utter fallacies. Alcohol gives no power; it only stimulates the natural processes, which need rest and carefully selected nutrients, and not the lash of alcoholic stimulants to goad them on to do a work they are unfitted to perform, and thus ultimately do harm instead of good. I quote again:—"As alcohol stops waste, promotes constructive metamorphosis by increasing the appetite and the digestive power, and favours the deposition of fat, it is directly indicated in chronic wasting diseases, especially in phthisis. Clinical experience is in accord with physiological data; alcohol is an important remedy in the various forms of pulmonary phthisis." Again I say that Bartholow is in error. Clinical experience has failed to establish the value of alcohol in cases of phthisis for the reasons heretofore given. It retards the normal processes of waste, and thereby induces a pathological fatty condition that life insurance companies have learned to steer clear of. I am here reminded of an old epitaph that I have seen quoted, said to have been upon a tombstone in an old English burying-ground. The man was a tallow-chandler by profession, and

became so obese, probably from drinking ale, that he died, and this was the inscription on his headstone:—

“Here lies poor Marks, an honest fellow,  
Who died by fat, but lived by tallow.”

To give you a variety, I will now quote from another eminent author, Ringer, on “Therapeutics.” After commending the use of alcohol to restore “appetite and digestion,” he says:—“Strength, no doubt, is best supported by food,”—to which I say Amen!—“yet,” he continues, “the weakened stomach can digest but sparingly, but at the critical juncture alcohol spurs the flagging digestion and enables the patient to take and assimilate more food.” I think it fitting to introduce a comparison here which, though it may appear crude, will illustrate my views upon the paragraph quoted. A teamster has a horse that, by hard work and a long and continuous draught, has become exhausted and unable to pull his load. The driver, whose name is Ringer, would rise upon his feet, and, with ejaculations more forcible than reverent, would, with threatening shouts and a vigorous application of the whip, so excite the nervous power of the poor animal that he would pull the load through, though he might fall exhausted or dead when the struggle was over. That is the effect of alcohol; it lashes the nervous system and makes a show of strength, but it is only a show, that is followed always by a corresponding depression. How would driver Richardson manage that beast had he been in charge? Like a man of sagacity he would spare the horse, if not from humane impulses; he would have a better way. The horse would be unhitched from the load, his harness removed, his limbs bathed, his whole system refreshed by a period of rest and a bountiful supply of nutritious food and water. Then, after a brief period, he would resume his load, and take it easily to the desired point, and be ready for further duties as usual the next day. Man is an animal that requires rest, pure water, and good food in health, and the conditions do not change

when he is sick; and he who in his wisdom thinks he can improve upon the elements needed for man’s sustenance by substituting alcohol for water and milk and drugs for food is wise only in his own conceit, and has yet to learn the alphabet of physiological science.

But Ringer says some things that I heartily endorse. For example:—“After a variable time the prolonged indulgence in alcoholic drinks seriously damages the stomach by producing chronic catarrh.” While advocating its use in many conditions of the system, and as a cardiac tonic, he is willing to state that “great as are the beneficial effects of alcohol in disease, yet it may do harm as well as good; . . . that, while alcohol may benefit one part of the system, it may injure another, doing good in one respect, yet on the whole inflicting more harm.” Again he says:—“In my judgment, there can be no doubt that alcohol is not required in all febrile diseases; on the contrary, many cases are best treated without it; and in no instance should it be given unless special indications arise.” That certainly is very conservative advice. Again he writes: “A large dose at onetime largely stimulates the heart, then, as the alcohol is decomposed or eliminated, the heart is left unsustained, when great weakness may set in; whereas the frequent administration of small quantities keeps the heart more uniformly supported.” I would ask, Is not the same kind of result produced, no matter what the size of the dose? The heart is left weaker in consequence of its unnatural and stimulated activity. To me this appears good logic. I am sorry that Ringer was led to write what I am now about to quote; how old toppers must relish such a declaration!—“The good old-fashioned remedy—rum or brandy and milk taken before breakfast—is useful in phthisis and exhausting diseases. A little rum and milk an hour before rising is a good prop to town-living women, to whom dressing is a great fatigue, who, without appetite for breakfast, suffer from morning languor and exhaustion, often lasting till mid-



day; and to convalescents from acute diseases." These same persons the good doctor, to be consistent, would have taken a little before dinner and tea to help the digestion, and again more at bedtime as a "nightcap" to induce sleep, and, if his practice was extensive, he would furnish business for a wholesale liquor store by his generous prescriptions for the various kinds of spirituous and malt liquors.

We now turn to Bidwell's "*Materia Medica*." He says, in brief and concise language, that "alcohol in the form of vinous and spirituous liquors is employed" (the italics are mine; you will notice that he fails to commend, but simply states the facts, which we cannot complain of or criticise) "to rouse and support the system in debility, in asphyxia, syncope, the latter stages of acute attacks, typhoid and typhus fever, asthenic and malignant diseases, exhausting hæmorrhages and suppuration, gangrene, to counteract the effects of bites of venomous reptiles, in *mania a potu*, and in poisoning from digitalis, tobacco, and other narcotics; also as a stomachic in colic, flatulence, indigestion, nausea, etc." Had Bidwell stopped here we would have had no controversy with him, but, alas! he closes by his wholesale commendation, as follows: "The early administration of the preparations containing alcohol furnishes our best means of counteracting the depressing action of disease in general."

I pass to our next author, only remarking that the preceding is a statement entirely unsustained by experience. In the "*Annual of the Universal Medical Sciences*" for 1888 I find this sentence: "As to the employment of alcohol at all, even in disease, the majority of writers seem to believe that it may be a most useful agent." I commend the compilers for their candour in making such a statement, though they rank themselves with the majority, for it reveals the fact (nevertheless, well known for several years) that there is a minority, respectable in numbers and character, that are steadily and conscientiously and scientifically at work to undermine the position that alcohol still holds in

the list of remedies for the treatment of disease. I contend that its use as medicine in disease generally is as unwise and delusive as its use as a beverage in health. I am encouraged in this work to know that, from being the universal and infallible remedy it was once assumed to be, and fitted to meet all of the ills to which our poor humanity is heir, it has fallen into disrepute, and there are many sound practitioners of medicine who rarely or never use it.

I now turn to the "National Dispensatory." Hear what that announces:—"The use of alcohol in every age and by every nation in the world demonstrates that it satisfies a natural instinct, that it literally refreshes the system exhausted by physical or mental labour, and that it not only quickens the appetite for food and aids in its digestion, but that it spares the digestive organs by limiting the amount of solid food which would otherwise be required. But in accomplishing this salutary end it does not act as a mere condiment. It is also food—in this sense at least, that it offers itself in the blood as a substitute for the tissues which would otherwise be destroyed." The writer quotes from Moleschott, who says: "Alcohol is the savings-bank of the tissues. He who eats little and drinks alcohol in moderation retains as much in his blood and tissues as he who eats more and drinks no alcohol." I wonder he doesn't go further and state that he might also save expenditure for clothing and coal, for he could fire up with alcohol and keep himself warm and save his coal-dealer's and tailor's bills. I remember hearing when I was a boy that "rum was a drunkard's lodging, meat, and, drink;" it filled all the requirements of his system; but I was not prepared to read in this day and age from a book that is published and received as authority that man had a natural instinct for whisky, and that it was "the savings bank of his tissues." I know a barrel of alcohol will keep a dead man if he is plunged into it, and the barrel sealed up, but a live man could not long be preserved in it, even if he took to it as naturally as a duck does



to water; and, if alcohol is his savings bank, I doubt if he ever has any deposits in any other bank. But I must not descend to the humorous. I had made copious selections from this "Dispensary," but will forbear to add more save this: "In the form of wine or distilled spirits, alcohol is the universal and familiar remedy for debility of every kind."

I now turn from this undue laudation of alcohol to the more conservative "United States Dispensary": "Alcohol is a very powerful diffusible stimulant. . . . In a dilute state it excites the system, renders the pulse full, and gives additional energy to the muscles, and temporary exaltation to the mental faculties. It is found to lessen the amount of the excretions, from which fact some physiologists have inferred that it diminishes the disintegration of the tissues. . . . In some cases of acute disease, characterised by excessive debility, alcohol is a valuable remedy. In chronic diseases, physicians should be cautious in prescribing liquids containing it for fear of begetting intemperate habits. . . . As an article of daily use, alcoholic liquors produce the most deplorable consequences. Besides the moral degradation, their habitual use gives rise to dyspepsia, hypochondriasis, visceral obstructions, dropsy, paralysis, and not infrequently mania."

These conclude my quotations from our standard text-books in medicine. I now desire to quote from the eminent Dr. Richardson, who, in an address delivered to physicians perhaps fifteen years ago, used these words:—

"We offer no reflection on the past, for we admit that in the past there was a common error pervading medicine in relation to the physiological action of alcohol, a common blindness as to the pathological evils springing from it, and a common misunderstanding or ignorance as to the extent of the evils. We remember how, in our pathological studies, our masters indifferently noticed the lesions admittedly produced by alcohol as they were observed in the dead, while they devoted their energies to define with the utmost nicety the lesions which immediately

caused death. I recall one of those devoted teachers, whose memory I shall ever cherish, who, at nearly every research in the deadhouse, would end the most careful description of the conditions that were the actual cause of the fatal disease with, 'Gentlemen, there are the usually known other lesions with which I need not trouble you, because they come under one head—whisky.' We admit all these past mistakes; we know how blind, not we alone, but all the world has been, and we come at present purely to review the past with the intention of improving the future."

The words of Dr. Richardson express my sentiments, and have ever since they were uttered by him or before I had the privilege of reading them. I feel, as I stated at our last meeting, that the time has arrived when we should carefully review our practice in the use of alcohol. When I began the practice of medicine, thirty-two years ago, I used whisky by the gallon in my treatment of typhoid fever and other exhausting diseases, because I was taught thus to do, not only by our authors, but by the medical teachers of those times. But I was too much of a Yankee to blindly follow ever in a beaten path, and, using my own eyes of observation, I gradually arrived at positive convictions that the value ascribed to alcohol in the treatment of such cases was a delusion, and cautiously I gradually withdrew the use of stimulants, until at last I found myself successfully managing typhoid cases without the use of a drop of stimulants, and my patients recovered more promptly, I believe, as the result of dispensing with alcohol.

Dr. Richardson goes on to say as follows:—"Fifteen, or, at the most, twenty years ago (that would be thirty or thirty-five years from this time), the true physiological action of alcohol was a speculative discussion unsupported by any reliable experiment, and therefore of the most contradictory character. Now there is so much evidence of its mode of action that dispute gives way to accepted facts. That the ultimate action of alcohol

in the animal temperature is to reduce the temperature; that alcohol relaxes organic muscular fibre; that alcohol produces four destructive physiological states of the body; that alcohol reduces oxidation; that alcohol interferes with natural dialysis; that alcohol induces, even in small quantities, a series of morbid changes and diseases which were not formerly attributed to it; that alcohol prepares the body for destruction by external shocks and depressions, which are thus made more fatal; that alcohol belongs to the same class of chemical substances as chloroform, ether, and the anæsthetic family—all this is now on the accepted record, with the final admission, when we are speaking and thinking seriously, that man, like his lower earth-mates and like his own children, can in health live and work and play as well—not to put a fine point on it—without a trace of alcohol as he can with it."

I am confident that were Dr. Richardson speaking to-day upon this topic he would put a finer point upon it; for the steady nerve of the unerring marksman, Dr. Carver, has no trace of alcohol to influence it, and no one can live or work or play with the full fruition of life's possibilities if alcohol has a place in his system; for it is a perturbing agent that disturbs the equilibrium of the vital forces and deranges the normal action of man's elaborate mechanism.

Dr. N. S. Davis, of Chicago, has said:—"Step by step the progress of science has nullified every theory on which the physician administers alcohol. Every position taken has been disproved until it is narrowed down to this: acute diseases where it is supposed there is danger from extreme weakness." After a further discussion of the subject, Dr. Davis adds: "Hence I assume that alcohol neither strengthens nor nourishes nor sustains the heart's action, but diminishes it."

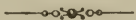
The limits within which I desire to confine my paper will not allow of more extensive quotations, and I will only add a few brief ones from other medical gentlemen whose views accord with my own observation and experi-

ence. Dr. R. Green stated several years ago before the Medical Society of Boston:—"Alcohol is neither food nor medicine. It cannot add one molecule to the plasm out of which our bodies are daily built up. On the contrary, it exerts upon the whole animal economy a most deleterious influence. It does not supply but diminishes vital force. It weakens the nerves, deadens the sensibilities, lessens the power of the system to resist disease or to recover from its effects. Alcohol cannot sustain vital force. It weakens the power of digestion and assimilation, and cannot be long continued without disastrous effects. There can be no excess in the animal economy without a corresponding loss. The momentary exaltation of the functions of either body or mind produced by alcoholic stimulants is always followed by an increased degree of depression. Alcohol may spur a weary brain or nerve a feeble arm to undue exertion for a time, but its work is destructive, not constructive; such stimulation means destruction, not added force. It is not stimulus but rest that is required for exhaustion from excessive mental labour. It is a whip, a cruel spur, quickening speed and consuming vitality." "As a result," he adds, "of thirty years of professional experience and practical observation, I feel assured that alcoholic stimulants are not required as medicines, and I believe that many if not a majority of physicians to-day of education and experience are satisfied that alcoholic stimulants as medicines are worse than useless, and physicians generally have only to overcome the prevailing fashion of to-day to find a more excellent way, when they will look back with wonder and surprise that they as individuals, and as members of any honoured profession, should have been so far compromised." Dr. Bernard O'Connor testified before the British Medical Association:—"During fourteen years of practice I never used alcohol for any patient; and my experience at the Consumption Hospital, to which I have been attached for some years, has been that consumptive

patients progress very much more favourably with the absence of any alcoholic liquid than they do when alcohol is administered." I make my last quotation from Dr. N. S. Davis:—"I speak the more positively because for thirty years I have faithfully tested the correctness of the sentiments given in relation to the therapeutic effects of alcohol in an ample clinical experience both in hospital and private practice. I have found no case of disease—no emergency arising from accident—that I could not treat more successfully without any form of fermented or distilled liquors. The preparations of ammonia and camphor are far more speedy and efficient remedies for immediately arousing the sensibility; while in caffeine, digitaline, convallaria, etc., I have found the proper cardiac tonics for restoring permanent steadiness and force to the circulation."

Gentlemen, I know and am proud of the fact that our noble profession is a conservative one. We are slow to abandon old remedies and theories for new ones, yet our Creator has endowed us with intelligence to guide us through

the great responsibilities that we have to bear; and is it not true wisdom for us to follow the teachings of that great apostle, Paul, who said, "Prove all things; hold fast that which is good," by which he implies that we are to cast overboard those agents that are found wanting? The wisest man of ancient times said: "Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise." It has deluded the world from the time of Noah until now. Let us, my professional brethren, cast off this great delusion, and relegate alcohol to the family of anæsthetics, of which it is the least worthy member, and then we shall rarely or never prescribe or make use of it. The limits of this paper have not allowed an elaborate discussion of the subject, but I trust that I have presented sufficient to answer the requirements of your complimentary resolution, and to arouse my professional brethren to renewed investigation on this line, that each of us may be prepared to give a reason for the faith we profess and the practice we follow.—*New York Medical Journal.*



## ALCOHOLIC TRANCE IN CRIMINAL CASES.\*

*By T. D. CROTHERS, M.D., Hartford, Conn.*

THE frequent statement of prisoners in court that they did not remember anything about the crime they are accused of, appears from scientific study to be a psychological fact. How far this is true in all cases has not been determined, but there can be no question that crime is often committed without a conscious knowledge or memory of the act at the time.

It is well known to students of mental science, that in certain unknown brain states memory is palsied, and fails to note the events of life and

surroundings. Like the somnambulist, the person may seem to realise his surroundings and be conscious of his acts, and later be unable to recall anything which has happened. These blanks of memory occur in many disordered states of the brain and body, but are usually of such short duration as not to attract attention. Sometimes events that occur in this state may be recalled afterwards, but usually they are total blanks. The most marked blanks of memory have been noted in cases of epilepsy and inebriety. When they occur in the latter they are called *Alcoholic Trances*, and are always associated with excessive use

\* Read to the Society for the Study of Inebriety, July 2, 1889.



of spirits. Such cases are noted in persons who use spirits continuously, and who go about acting and talking sanely although giving some evidence of brain failure, yet seem to realise their condition and surroundings. Some time after, they wake up and deny all recollection of acts or events for a certain period in the past. This period to them begins at a certain point and ends hours or days after, the interval of which is a total blank, like that of unconscious sleep. Memory and certain brain functions are suspended at this time, while the other brain activities go on as usual.

In all probability the continued paralysis from alcohol, not only lowers the nutrition and functional activities of the brain, but produces a local palsy, followed by a temporary failure of consciousness and memory, which after a time passes away.

When a criminal claims to have had no memory or recollection of the crime for which he is accused, if his statement is true, one of two conditions is probably present, either epilepsy or alcoholism. Such a trance state might exist and the person be free from epilepsy and alcoholism, but from our present knowledge of this condition it would be difficult to determine this fact. If epilepsy can be traced in the history of the case, the trance state has a pathological basis for its presence. If the prisoner is an inebriate, the same favouring conditions are present. If the prisoner has been insane, and suffered from sun or heat stroke, and the use of spirits are the symptoms of brain degeneration, the trance state may occur any time.

The fact of the actual existence of the trance state is a matter for study, to be determined from a history of the person and his conduct; a grouping of evidence that the person cannot simulate or falsify; evidence that turns not only on one fact, but on an assemblage of facts that point to the same conclusion.

The following case is given to illustrate some of these facts, which support the assertion of no memory of the act by the prisoner in court:—

A— was repeatedly arrested for horse stealing, and always claimed to be unconscious of the act. This defence was regarded with ridicule by the court and jury, and more severe sentences were imposed, until finally he died in prison. The evidence offered in different trials in defence was, that his father was weak-minded and died of consumption, and his mother was insane for many years, and died in an asylum. His early life was one of hardship, irregular living, and no training. At sixteen he entered the army, and suffered from exposure, disease, and sunstroke, and began to drink spirits to excess at this time. At twenty he was employed as a hack driver, and ten years later became owner of a livery stable. He drank to excess at intervals, yet during this time attended to business, acting sanely, and apparently conscious of all his acts, but often complained he could not recollect what he had done while drinking. When about thirty-four years of age he would, while drinking, drive strange horses to his stable, and claim that he had bought them. The next day he had no recollection of these events, and made efforts to find the owners of these horses and return them. It appeared that while under the influence of spirits the sight of a good horse hitched up by the roadside alone, created an intense desire to possess and drive it. If driving his own horse, he would stop and place it in a stable, then go and take the new horse, and after a short drive put it up in his own stable, then go and get his own horse. The next day all this would be blank, which he could never recall. On several occasions he displayed reasoning cunning, in not taking a horse when the owners or drivers were in sight. This desire to possess the horse seemed under control, but when no one was in sight all caution left him, and he displayed great boldness in driving about in the most public way. If the owner should appear and demand his property he would give it up in a confused, abstract way. No scolding or severe language made any impression on him. Often if the horse seemed weary he would



place it in the nearest stable, with strict orders to give it special care. On one occasion he joined in a search of a stolen horse, and found it in a stable where he had placed it many days before. Of this he had no recollection. In another instance he sold a horse which he had taken, but did not take any money, making a condition that the buyer should return the horse if he did not like it. His horse-stealing was all of this general character. No motive was apparent, or effort at concealment, and on recovering from his alcoholic excess, he made every effort to restore the property, expressing great regrets, and paying freely for all losses. The facts of these events fully sustained his assertion of unconsciousness, yet his apparent sanity was made the standard of his mental condition. The facts of his hereditary drinking, crime and conduct, all sustained his assertion of unconsciousness of these events. This was an alcoholic trance state, with kleptomaniac impulses.

B—was executed for the murder of his wife. He asserted positively that he had no memory or consciousness of the act, or any event before or after. The evidence indicated that he was an inebriate of ten years duration, dating from a sunstroke. He drank periodically, for a week or ten days at a time, and during this period was intensely excitable and active. He seemed always sane and conscious of his acts and surroundings, although intensely suspicious, exacting, and very irritable to all his associates. When sober he was kind, generous, and confiding, and never angry or irritable. He denied all memory of his acts during this period. While his temper, emotions and conduct, were greatly changed during this time, his intellect seemed more acute and sensitive to all his acts and surroundings. His business was conducted with usual skill, but he seemed unable to carry out any oral promises, claiming he could not recollect them. His business associates always put all bargains and agreements in writing when he was drinking, for the reason he denied them when sober. But when not drinking his word and promise

were always literally carried out. He broke up the furniture of his parlour when in this state, and injured a trusted friend, and in many ways showed violence from no cause or reason, and afterwards claimed no memory of it. After these attacks were over, he expressed great alarm and sought in every way to repair the injury. Finally he struck his wife with a chair and killed her, and awoke the next day in gaol, and manifested the most profound sorrow. While he disclaimed all knowledge of the crime, he was anxious to die and welcomed his execution. This case was a periodical inebriate with maniacal and homicidal tendencies. His changed conduct, and unreasoning, motiveless acts, pointed to a condition of trance. His assertion of no memory was sustained by his conduct after, and efforts to find out what he had done and repair the injury.

The following case illustrates the difficulty of supporting a prisoner's statement of no memory when it is used for purposes of deception :

CASE E.—An inebriate killed a man in a fight, and was sentenced to prison for life. He claimed no memory or recollection of the act. I found that when drinking he seemed conscious of all his surroundings, and was always anxious to conceal his real condition, and if anything had happened while in this state he was very active to repair and hush it up. He was at times quite delirious when under the influence of spirits, but would stop at once if anyone came along that he respected. He would, after acting wildly, seem to grow sober at once, and do everything to restore the disorder he had created. The crime was an accident, and at once he attempted concealment, ran away, changed his clothing, and tried to disguise his identity; when arrested, claimed no memory or consciousness of the act. This claim was clearly not true, and contradicted by the facts.

Probably the largest number of criminal inebriates who claim loss of memory as a defence for their acts are the alcoholic dements. This class are the chronic inebriates of long duration; persons who have naturally physical

and mental defects, and who have used spirits to excess for years. This, with bad training in early life, bad surroundings, and bad nutrition, has made them of necessity unsound, and liable to have many and complex brain defects. Such persons are always more or less without consciousness or realisation of their acts. They act automatically only, governed by the lowest and most transient impulses. Crimes of all kinds are generally accidents growing out of the surroundings, without premeditation or plan. They are incapable of sane reasoning or appreciation of the results of their conduct. The crime is unreasoning, and general indifference marks all their acts afterwards. The crime is always along lines of previous conduct, and never strange or unusual. The claim of no memory in such cases has always a reasonable basis of truth in the physical conditions of the person. Mania is very rarely present, but delusions and morbid impulses of a melancholy type always exist. The mind, like the body, is exhausted, depressed, and acts along lines of least resistance.

The second group of criminals who claim no memory are those where the crime is unusual, extraordinary, and unforeseen. Persons who are inebriates suddenly commit murder, steal, or do some criminal act that is foreign to all previous conduct. In such cases the trance condition may have been present for some time before and escaped any special notice, except the mere statement of the person that he could not recollect his acts. The unusual nature of the crime, committed by persons who never before by act or thought gave any indication of it, is always a factor sustaining the claim of no memory. The explosive, unreasoning character of crime, always points to mental unsoundness and incapacity of control.

A third group of criminals urge this statement of no memory, who, unlike the first group, are not imbeciles generally. They are positive inebriates, drinking to excess, but not to stupor, who suddenly commit crime with the most idiotic coolness and indifference, never manifesting the slightest appre-

ciation of the act as wrong, or likely to be followed by punishment. Crime committed by this class is never concealed, and the criminal's after conduct and appearance give no intimation that he is aware of what he has done. These cases have been termed moral paralytics, and the claim of the trance state may be very likely true.

A fourth group of cases where memory is claimed to be absent occurs in dipsomaniacs and periodical inebriates, who have distinct free intervals of sobriety. This class begin to drink to great excess at once, then drink less for a day or more, and begin as violently as ever again. In this short interval of moderate drinking some crime is committed of which they claim not to have any recollection.

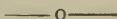
Other cases have been noted where a condition of mental irritation or depression preceded the drink explosion, and the crime was committed during this premonitory period, and before they drank to excess. The strong probability of trance at this period is sustained by the epileptic character of such conduct afterwards. The trance state may be justly termed a species of *aura*, or brain paralysis, which precedes the explosion.

In some instances, before the drink storm comes on, the person's mind would be filled with the most intense suspicions, fears, delusions, and exhibit a degree of irritation and perturbation unusual and unaccountable. Intense excitement or depression, from no apparent cause, prevails, and during this period some crime may be committed; then comes the drink paroxysm, and later all the past is a blank. Trance is very likely to be present at this time.

In these groups the crime is generally automatic, or committed in a manner different from other similar crimes. Some governing centre has suspended, and all sorts of impulses may merge into acts any moment. The consciousness of acts and their consequences are broken up. The strong probability is that these trance blanks begin in short periods of unconsciousness, which lengthen with the degeneration and mental feebleness

of the person. The obscurity of these conditions, and the incapacity of the victims to realise their import, also the absence of any special study, greatly increases the difficulty. It will be evident from inquiry that trance states among inebriates are common, but seldom attract attention, unless they come into legal notice. The practical question to be determined in a given case in court is the actual mental condition of the prisoner, who claims to have no recollection of the crime. This is a class of evidence that must be determined by circumstantial and collateral facts, which require scientific expertness to gather and group. The court can decide from the general facts of the crime and the prisoner whether his claim of no memory may possibly be true, and order an expert examination to ascertain the facts. This should be done

in all cases where the prisoner is without means, in the same way that a lunacy commission is appointed to decide upon the insanity. The result of this expert study may show a large preponderance of evidence sustaining the claim of no memory, or the opposite. If the former, the measure of the responsibility must be modified, and the degree of punishment changed. While such cases are practically insane at the time, and incapable of realising or controlling their acts, they should be kept under legal and medical surveillance for a lifetime, if necessary. Such men are dangerous, and should be carefully watched and deprived of their liberty for a length of time depending on recovery and capacity to act rationally and normally. They are dangerous diseased men, and, like victims of contagious disease, must be housed and treated.



## ANOTHER MEDICAL WITNESS.

DOCTORS are very much like other men, and have most of the weaknesses of the society in the midst of which they dwell. Amongst them, as in general society, we find some open antagonists; but the number of them, as in general society, is growing "small by degrees and beautifully less." We have many who, having become thoroughly persuaded that alcohol is, in all cases, injurious as a beverage, and ought only to be prescribed as a medicine with the same care and caution as they bestow on other poisons, boldly take their stand on the principle of total abstinence, and manfully face the keen competition with those who are more complacent to the strong prejudices of their patients. But there are still many physicians who, as in general society, while deeply conscious of the havoc made by alcohol amongst all sorts and conditions of men—fully persuaded that the struggle against this

enemy of the human race is one in which no man, however feeble his powers and limited his opportunities, can be excused from standing aloof—are nevertheless unwilling to take that final step which is the only logical conclusion of the sentiments they do not hesitate to declare. At the crucial point they step on one side. To this point conscience, experience, and observation, drive them, and there they stick. Some turn round and sneer at those who take a step further. This is what Dr. James Edward Pollock has done in his "Medical Handbook to Life Assurance," which has just been issued by Messrs. Cassell & Co. It is quite true, as the doctor states, that there are many who become dull rather than excited when drinking, and he might have added that many who are pleasurably excited at first gradually reach that condition. But he is quite mistaken when he says: "Thus a large proportion of the self-glorious



teetotalers have had no temptation to exceed in stimulants. In them opium, tobacco, or alcohol, do not exalt the sensations, nor minister to dreamy delights, but simply stupefy."

Now this is as inaccurate in point of fact as it is vulgar in tone, and unworthy of a man who poses as a philosophic teacher, and expects his brother medicos to listen to his lessons and observe the rules which he lays down. It is not a fact that teetotalers, "self-glorious" or otherwise, any "large proportion" of them, have become abstainers because drink no longer exalted the sensation but simply stupified. The chief motives which actuate them are the conviction that, even in moderation, alcohol is always unnecessary to persons in health, that if used for medicinal purposes it is only safe to do so when strictly prescribed as medicine and taken as such, and that even those who are now so constituted that they are able to resist excess are liable to lose that power; and, at any rate, that it is their duty to abstain, not merely for the sake of their personal health, but also for the sake of setting a good example to those who are constitutionally less strong, and who are surrounded with more frequent and more powerful temptations. Nor do we agree with Dr. Pollock when he describes the drink "craving" as "in almost all cases an inherited weakness." On the contrary, personal indulgence will assuredly bring about that undesirable state of things, even in the children of life-long abstainers.

We take the liberty of advising Dr. Pollock to give some study to the researches of his brother medicos connected with the "Society for the Study of Inebriety," as his personal experience has been far too limited to justify the authoritative tone which he adopts on this question. At present he "scarcely believes in the existence of a reclaimed drunkard," as in his long medical experience he has known only two such cases. He even goes so far as to recommend life offices to refuse to accept the lives of abstainers who are known to have been "habitually intemperate," as "they almost

always break out again." Those who are engaged in temperance work can, with grateful hearts, thank God that such a statement is a gross and pitiful exaggeration. That some do fall away from their high and noble resolution to take no more is a sad and disheartening fact which all must deplore, and which is another potent argument against the drink, showing the fatal nature of the bondage in which it holds its victims. When they do "break out again" the real blame is often due to men in the influential position of Dr. Pollock, who, after knocking alcohol on the head with vigour and persistence all through his book, still has the hardihood to affirm that the "moderate use of it does not tend to shorten life," and he defines "moderation" as "a small quantity, taken with the meals, not oftener than twice a day." Nothing can have a worse effect, practically, than to tell a poor victim about whom the alcoholic octopus had begun to twine its fatal arms, and who had resolved to break from its deadly grasp, and take the only safe stand on total abstinence, that "they nearly always break out again, and a little drop twice a day, if you always take it with your meals, will not tend to shorten life." A medical examiner for a life assurance company ought to be the last man in the world to preach this ill-advised doctrine. Would he say the same of any of the other medicinal poisons? Would he sanction their use in small quantities "twice a day"—opium, for instance, to remove insomnia? Nay, rather would he not proclaim the truth that the remedy was worse than the disease, owing to the tendency of a growing dose to keep up the effects, and the certain injury in all cases of habitual indulgence?

As to his sneer at temperance offices, in the first place, they would certainly not accept the life of a man whose constitution was injured by his drinking habits merely because he had become an abstainer, any more than Dr. Pollock would, if they applied to one of the offices for which he is examiner; and as to the fact that some of them, tempted by the declara-

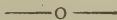


tion of such authorities as Dr. Pollock that they can safely take a little twice a day if they take it with their meals, cease to be abstainers, they drop *ipso facto* into the "general" branch at the Temperance Provident, the rate of mortality in which is quite as low as in any of the offices Dr. Pollock is connected with.

But we must not let it be imagined, from what we have stated, that, as a rule, Dr. Pollock gives alcohol any quarter in dealing with it as one of the causes which contribute to shorten life, and, therefore, render those who indulge in it ineligible as proposers for insurance. He would not have publicans, for instance, even at an extra rate of £1 per cent. ! because, though they may be temperate when proposing, they are so exposed to incessant temptation, and he says those offices that will not have them on any terms "are not far wrong." Generally he insists on the most careful inquiry into the drinking habits of those who propose for insurance, and suggests that the daily quantity taken by the proposer should be written down in the document he has to sign. If this were done, it would become a part of the contract, and be found a fruitful source of litigation, and would destroy that "certainty" which is an essential and indispensable element of the life assurance contract. For nothing would be easier as a rule, than to produce evidence that the deceased policyholder habitually before his death took alcohol in quantities far exceeding that modest allowance to which he

confessed at the time of proposing. There are tens of thousands who think themselves safe, and, in fact, boast of their sobriety, if they can only assert, with a moderate amount of truth, that they "never get drunk." Yet Dr. Pollock does not mince matters as to persons of that class. He says, "Small doses of stimulants taken repeatedly through the day, and ended by a somewhat larger one at night, leave the system charged with alcohol, from which, in fact, it is never free. . . . These are then most dangerous cases." He would reject those who take stimulants three or four times a day. Cases of drinking between meals, he thinks, ought to be carefully inquired into. He is concerned about the abstainer in the temperance office who "breaks out again;" but we should like to ask him what proportion of those whom he passes, who at present pretend to adhere to his twice-a-day small doses, stick to anything like that allowance for any considerable period after they had passed him? Is he not of opinion that at least as many lapse into excess from the "twice-a-day" dose as from total abstinence? If not, why sneer at that which is at any rate the safer course of the two?

In conclusion, we may observe that there are many portions of this work of intense interest, not only to those who examine for life offices, but to all who are seeking information as to the causes which tend to shorten life, amongst which, by Dr. Pollock, alcohol is assigned the chief place.—*Temperance Record*.



## THE LAW RELATING TO DRUNKENNESS AND INEBRIETY.

At the quarterly meeting of the Society for the Study and Cure of Inebriety, held on Tuesday, 7th January, at the Medical Society's Rooms, Charles Street, W., under the presidency of Dr. Norman Kerr, Mr. J. R. McILRAITH, M.A., LL.B., Barrister-at-Law, read an exhaustive and inte-

resting paper on the "Law relating to Inebriety." Dealing first with

### ENGLISH LAW IN CIVIL CASES,

he remarked that it might be laid down that, if a person seeking to be relieved from his contract obligation, could establish that by reason of his drunken-

ness he was (1) incapable for legal acts at the time of contracting, or (2) induced to oblige himself under circumstances establishing essential error, constraint or fraud, then he would be held justified in refusing to fulfil his obligation. That drunkenness was an element whence a man's incapacity to do legal acts may be inferred, was undoubtedly part of the English Common Law. Citing numerous authorities Mr. McIlraith led up to Lord Tenterden's conclusion that it was very important that courts of justice should afford protection to those individuals who were unfortunately unable to be their own guardians.

That the fact of drunkenness might be important when a person sought to be freed from an obligation on the ground of error, constraint, or fraud, was established by many cases. So in the American case of *Prentice v. Achorn*, where a trust conveyance of a farm was sought to be retracted, the jury found that the deed was fraudulently and improperly obtained from the grantor at a time when he was, by reason of intoxication, wholly incompetent to exercise proper deliberation, and it was accordingly set aside as being fraudulent and void. In such cases it was not even necessary always to prove actual fraud, for under certain circumstances it would be implied. Thus, in *Rich v. Sydenham* a bond had been given by defendant when drunk for £1,600 in security of an actual loan of £90, and the plaintiff got no relief, "not so much as for the principal he had really lent," the difference in amounts making it sufficiently clear that he had been guilty of fraud in taking the bond.

It was very important to note that something more than mere intoxication must be proved in order to establish error, constraint, or fraud. Thus, in *Cory v. Cory*, the question was whether it was sufficient to set aside an agreement that one of the parties was drunk at the time, and the Lord Chancellor thought it was not unless some unfair advantage was taken.

On looking into the cases in which the element of drunkenness had been

the main issue, one could not help observing that they nearly all turned upon the question of fraud and not on the want of legal capacity.

Considering what degree of intoxication must be proved in order to establish want of legal capacity on the part of the obligor or implied fraud on the part of the obligee, authorities were quoted to show that for this purpose it was sufficient to make out drunkenness so total as to deprive the intoxicated person of knowledge of what he was doing.

The principle underlying all cases whether the issue was as to the capacity to consent, or as to the voluntary nature of the consent, was the same, namely, that the party was at the time of entering into the legal act incapable of giving that free and voluntary assent thereto which the law requires.

Chief Baron Pollock held that a tradesman supplying a drunken man with necessaries might recover the price if the party kept them when he became sober, although a count for goods bargained and sold would fail. To the same effect were the words of Baron Alderson, in the same case, who, however, seemed to think it necessary for him to acquiesce when sober, for he doubted whether if the man repudiated the contract when sober any action would lie upon it.

However considerate in protecting persons from the effects of injudicious contracts into which they may have entered in a state of intoxication,

#### ENGLISH LAW IN CRIMINAL CASES

certainly did not afford the same relief to those who happened while intoxicated to commit acts which were considered to be torts or crimes. The New York Chancellor said as respects crimes, sound policy forbade that intoxication should be an excuse; for if it were, under actual or feigned intoxication the most atrocious crimes and injuries might be committed with impunity. The law in its full strictness was laid down by Chief Justice Hawkins thus:—"He who is guilty of any crime whatever through his voluntary drunkenness shall be punished for it

as much as if he had been sober." In fact, the law of England in respect to the criminal responsibility of drunkards was not dissimilar to that of ancient Greece, where, according to Puffendorff (B. viii., c. 3), "the law of Pittacus enacted that he who committed a crime when drunk should receive a double punishment; one for the crime itself and the other for the inebriety which prompted him to commit it."

For the general rule of English law there was ample case authority. A great distinction was, however, shown to be drawn by the judges, in the cases cited, between acts committed under the condition of drunkenness, and those committed while in a diseased or lunatic state, induced by persistent alcoholic indulgence. Justice Stephen, in charging a Newcastle jury (27th April, 1881), thus put this view—"As I understand the law, any disease which so disturbs the mind that you cannot think calmly and rationally of all the different reasons to which we refer in considering the rightness or wrongness of an action—any disease which so disturbs the mind that you cannot perform that duty with some moderate degree of calmness and reason, may be fairly said to prevent a man from knowing that what he did was wrong. *Delirium tremens* is not the primary but the secondary consequence of drinking, and both the doctors agree that the prisoner was unable to control his conduct, and that nothing short of physical restraint would have deterred him from the commission of the act. If you think there was a distinct disease caused by drinking, but differing from drunkenness, and that by reason thereof he did not know that the act was wrong, you will find a verdict of not guilty on the ground of insanity." In this case, accordingly, the jury brought in a verdict of not guilty.

If the insanity induced be merely momentary it is very doubtful whether it would be admitted in exoneration. So Earl Ferrers is reported to have said during his trial for murder in 1760:—"If my insanity had been of my own seeking, as the sudden effect

of drunkenness, I should be without excuse."

Considering how far apart from questions of insanity drunkenness would be allowed to extenuate criminal acts, Mr. McIlraith quoted Dr. Paley's "Moral Philosophy" (vol. iv. c. 2):—"The only guilt with which he (the drunkard) is chargeable, was incurred at the time when he voluntarily brought himself into this situation, and as every man is responsible for the consequences which he foresaw, or might have foreseen, and for no other, this guilt will be in proportion to the probability of such consequences ensuing;" and deduced the conclusion that if, then, the drunkenness was not voluntarily incurred no responsibility should attach.

In the opinion of some judges the quantity of liquor consumed is of importance. Thus Lord Chief Justice Coleridge said in 1849, "Drunkenness is ordinarily neither a defence nor excuse for crime, and when it is available as a partial answer to a charge it rests on the prisoner to prove it, and it is not enough that he was excited or rendered more irritable unless the intoxication was such as to prevent his restraining himself from committing the act in question, or to take away from him the power of forming any specific intention. Such a state of drunkenness may no doubt exist. To ascertain whether or not it did exist in this instance you must take into consideration the quantity of spirit he had taken, as well as his previous conduct."

Mr. McILRAITH, in concluding his valuable paper, said it should be noted that there was nothing in England corresponding to the *curatelle* recognised in some countries, but a peculiar class of persons had been created by

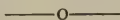
#### THE HABITUAL DRUNKARDS ACT, 1879,

and a consideration of their criminal responsibility might arise at any time. Prior to this Act the superstitious reverence of English law for the liberty of the subject prevented the exercise of any compulsory control over habitual drunkards. Now, however, it was

lawful for one who fell short of lunacy, but was nevertheless, through the effects of drink, incapable of managing himself and his affairs, to place himself in the custody of one holding a license to keep a retreat under this Act; but only such could apply for admission who were able to understand the full nature of their action, so that the benefits of the Acts were refused to those who stood most in need of compulsory control. The law as above stated then, whether civil or criminal, was not altered so as to give any preference to those who accepted the privileges of the Act, and, until the restraint of habitual drunkards was made compulsory, English law was hardly likely to follow the practice adopted in many parts of America, in holding that the inquest establishing a case of habitual drunkenness led to a *prima facie* presumption of the subject's incapacity to manage his affairs.

In the discussion which followed, Dr. Kerr said, that if insanity arising from habitual drunkenness were to be allowed as an excuse, he did not see why the same should not be the case with periodical drunkards. Was drinking always voluntary? His medical experience had shown that it was not, and that there were plenty of people who were perfectly unable to refrain from drinking if they got the chance. It was perfect nonsense for a judge to argue that such persons should be held responsible. Fathers and mothers, or other ancestors, had often drunk too much, and the disease was in many cases hereditary. He alluded to the case in which Lord Justice Young had discharged a woman charged with ill-treating her child whilst drunk, and said that a compulsory home for such persons was urgently needed.

Mr. Hilton and Deputy Surgeon-General Brake also spoke.



## RELATION OF ALCOHOL TO INSANITY.

THE dependence of a large percentage of crime upon the abuse of alcohol is a matter of everyday observation, and the relation of cause and effect is no longer seriously questioned. The rôle that alcohol plays in the causation of insanity is for many reasons a much more obscure and difficult problem. The determination of the causal factors in any given case of mental alienation, even in so-called puerperal cases, is at best and necessarily but a summation of the probabilities. The facts upon which the decision is to rest are difficult to obtain, and when elicited, usually point to a number of predisposing conditions and a plurality of possible exciting causes. In American communities the difficulties are amplified by the transition state of our populace. What to-day are hamlets, in a decade are towns, and in a score of years may be cities. All habits and modes of living may thus, for any

individual, be widely varied within a short period, and who can estimate its influence upon the character and nervous organisation? Besides, our population is heterogeneous in a high degree. The higher proportion of insanity among foreign born, as compared with those of native birth, influences averages for the worse and makes statistics misleading and of doubtful value. An opinion is current that insanity is greatly on the increase in this country, but this is not absolutely to be determined. Many cases such as formerly were cared for by friends or allowed to run at large are now placed in asylums and brought within the limits of statistical returns. The better care, treatment, and protection of this unfortunate class has, during the past two decades, notably increased their longevity, so that the average duration of insanity has been lengthened nearly fifty per cent. More-



over, many are now placed under such medical treatment and control as can only be afforded in well-equipped institutions, who in former years would not have been admitted, and whose sanity would never have been questioned. Then the immigrant class, predisposed to a high insane average, are subjected to the toils and privations and hardships of new comers, to which is added the potent depressing influence of separation from home and friends. From these various sources of error any deductions upon the question in hand derived from observations in this country would have but little reliability.

It is, therefore, with interest that we read the proceedings of the Third International Congress for the Study of Alcoholism, held in Paris last August. England, Holland, Belgium, Switzerland, and some other countries, were fairly represented, but on the whole the affair was distinctly French, and the observations and conclusions adopted pertain to France in particular, though applicable to other European states.

It was announced, and the statement was supported by Government reports, that insanity had increased nearly one-half in the past twenty years. The pertinent question is in regard to the cause of this appalling increase. In France, for instance, there is no considerable movement of population, not even by natural growth, the conditions of life and society are crystallised in the mould of tradition and custom, their hospital facilities are only enlarged upon urgent demand, and the cure of the insane is about what it was twenty years ago, speaking from the standpoint of protection, supervision, and asylum quarters. Their people are in a high measure of one nationality. for, outside of Paris, resident foreigners are comparatively rare. While, then, the population and general conditions have remained nearly stationary, insanity has wonderfully multiplied.

It was also shown, and the showing is again based on Government reports which are for this particular absolutely reliable, that the consumption of alco-

hol for drinking purposes had increased in almost the same ratio during this period of twenty years. These two facts taken together, suggestive as they are, would not justify hasty generalisation. It may be urged that the tendency of insanity to increase from hereditary causes might account for the enlarged percentage of this unfortunate class. An increment from this source must undoubtedly be admitted, but a tendency to barrenness among those of well-marked hereditary neurotic taint has long been observed, and acts as a fortunate though partial offset. Probably a history of the severer neuroses in antecedents and near relatives is obtained in cases of insanity as frequently as a distinct hereditary insane trace, and the question as to the dependence upon alcoholism of these diseases, which seem to entail a liability to insanity, is raised. Many authoritative writers and prudent observers consider such a relation to often exist.

A strong light is thrown on the situation by the fact that the increase noted in France is almost entirely made up of cases of alcoholism and general paralysis, the ordinary forms of insanity retaining approximately their former ratio. The same thing is true in a great measure in Holland, where, of late years, alcohol distilled from potatoes has come into general use, the effect of which is said to be particularly harmful as compared with alcohol otherwise derived. It probably is in accord with the statements of a majority of trustworthy writers to attribute general paralysis to alcohol or the vices which are correlated with its excessive use. Dr. Garnier, in a paper read before the International Congress of Mental Medicine held in Paris about the same time, goes to the extreme of attributing general paralysis solely to the abuse of alcohol, a position strongly combated in the debate which followed, and which is not altogether tenable unless the widest latitude for indirect causation is granted.

The members of the Congress first mentioned manifested a marked unanimity of opinion in regard to the

relation of insanity to the consumption of alcohol, and the following resolutions or views were adopted:—

1. The increased consumption of alcohol is one of the principal causes of the development of crime and insanity.

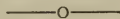
2. A diminution in the number of drinking places being one of the means of reducing the consumption of alcohol, this Congress is of the opinion that Governments should take measures to restrict the number of dramshops.

Opinions were also expressed that crimes committed during the delirium of inebriety should not entail full responsibility, but, on the other hand, that society should be protected against such drunkards by their being subject to sequestration in suitable retreats.

Whatever may be one's personal opinion, the expression of the above views, coming as they do from an

intelligent body of men, must carry emphatic weight. It must be borne in mind that the members of this Congress probably never contemplated prohibitory legislation; that they live in countries where in some form alcohol is, as a rule, a part of the dietary; that in no way can the cry of fanaticism be raised; and that, in all probability the great majority of them use alcoholics more or less themselves. This lends added importance to their action.

It is probably well within the limits of facts to consider the abuse of alcohol as not only capable of causing insanity, but as being a frequent cause of this the most distressing and wide-reaching calamity that can befall an individual or a family, and which imposes a heavy burden of tax and responsibility upon the community at large — *Journal of the American Medical Association*.



## THE RELATION OF TEMPERANCE TO IDIOCY.

By A. C. ROGERS,

*Supt. of Minnesota Asylum for Feeble Minded.*

"Do you not find intemperance the most frequent cause of idiocy and imbecility?" is the substance of numerous questions which the medical officers of schools for feeble-minded are frequently called upon to answer.

The best information which we have upon the subject teaches us quite conclusively that intemperance is a potent influence in the causation of idiocy, but it is not so generally the cause as has been thought.

The principal sources of information upon this subject are the statements of certain commissions which reported respectively to the Massachusetts and the Connecticut Legislature, some years ago, and the investigations of superintendents of institutions for feeble-minded.

The fact must be borne in mind

that the whole subject of the etiology of idiocy is, in our present state of knowledge, involved in uncertainties and conjectures.

In the first place, the pursuit of this study necessitates an invasion of the realms of domestic privacy into which the most enthusiastic student hesitates to enter, and from which is obtained but little that is relevant and direct.

In the next place, the study of objective traits and obvious family or individual history, if it reveals anything, very seldom reveals, *alone*, any one of the many factors which by the concurrent and almost universal testimony of observers *may be sufficient* to produce this condition. The evidence in most cases must, at best, be circumstantial. Our reasons for believing

intemperance a prolific cause of idiocy are:—

1. There have been well authenticated instances where the action of the alcohol upon the unborn child was direct and marked. The case often quoted from the writings of Dr. Edward Seguin will illustrate:

Mrs. D —, a very refined woman of temperate habits, before the birth of her fourth child began to drink one quart of brandy a day, and continued to do so, her head being never affected, until her son was born. Though she and her husband were remarkably swarthy, her child was pearly white; she has never touched brandy since. It is needless to add that the child was idiotic.

2. Again, from the psychical view alone, the fact of inebriety itself evidences a lack of will power and a vacillating disposition which become marked just in proportion to the degree of inebriety. Alienists now recognise that this condition is really a disease, and the courts have begun to rule upon this basis in a trial of inebriates for crime, holding that, expressing it broadly, a man who has not will power enough to prevent his becoming a confirmed inebriate is insane. By the laws of heredity the child would not only become possessor of the naturally weak volitional powers of the parent, but would also be affected in some measure by the mental habits which both parents have acquired, unless offset by a fortunately strong faculty of one parent. One of the prominent characteristics of idiocy is this lack of will power, especially in its exercise to follow a fixed purpose. The hereditary tendency is evident.

No very valuable mathematical statements as to the importance of this factor as a cause of idiocy can be given, for the reasons at first suggested.

3. In 1848, in Massachusetts, a commission appointed for the purpose prepared a report which became a state document, representing an examination of five hundred and seventy-four cases of idiocy. In the report, I understand, forty-five cases were

fully tabulated, and of these eleven were children of intemperate parents.

In 1856 a commission reported to the Connecticut Legislature embodying information concerning five hundred and thirty-one cases. Of this number, seventy-six were reported as having intemperate parents. In thirty cases both parents were so addicted, while in forty-six cases this sin was laid at the door of one parent only the father being guilty in forty-three instances and the mother in three.

At the Royal Albert Asylum, Lancaster, England, an examination of the antecedents of three hundred inmates showed that sixteen had intemperate parents; while at Earlswood, England, a similar examination of eight hundred cases announced only six in which the condition was ascribed to intemperance.\*

Dr. I. N. Kerlin, of Elwin, Pa., in a very carefully prepared tabulation of one hundred cases, found thirty eight in which there was recorded in temperance of parents.

Dr. C. T. Wilbur, of Lincoln, Ill., found eight cases resulting from abuse of drink by parents, out of three hundred and sixty-five in which the supposed cause of idiocy was recorded; but there is no statement as to the number of cases in which there were intemperate antecedents.

The writer, while serving as medical assistant at the Institution for Feeble-Minded at Glenwood, Iowa, examined the antecedents of five hundred cases and the causes ascribed for the condition. Of this number, in one hundred and fifty-six cases, no cause was given, but intemperance of parents was found in nine cases. In the remaining three hundred and forty-four cases, twenty-three had intemperate parents, while in only two cases was the cause ascribed to this habit.

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\* The information concerning the Massachusetts report, and the examinations made at Lancaster and Earlswood, is taken from "Intemperance as a Cause of Idiocy," by Dr. G. E. Shuttleworth, Proceedings of American Association for Feeble Minded, p. 46, session of 1878.

There are two errors to be guarded against in the study of this subject. (1) The full acceptance of statements of parents and friends; and (2) The hasty assumption that any one unfortunate antecedent or condition is alone responsible for the mental deficiency of the child. The former is liable to underestimate the cause, and the latter to overestimate it, and both to obscure it. The former are of value only when the parents are intelligent and sincere, and the latter only as considered in connection with its associated infirmities.

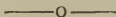
In the tabulations last cited, while intemperance of parents existed in thirty-two instances, there were twenty-nine instances of feeble-mindedness in the family histories; eight of insanity; forty six of scrofula; forty-nine of phthisis; twenty-five of kinship, &c. In many instance two or more of these factors existed in the same family.

The results of these investigations, while disappointing to enthusiastic temperance workers, and while they are not as definite as would be desired, are sufficiently conclusive to have made those who have given the subject any study recognise intemperance in the use of alcoholic beverages as *one* of the important causes of idiocy. The teaching is certainly obvious, and any disappointment experienced results

from an impression which has been quite general for a number of years that the *majority* of idiots were born of intemperate parentage. Loose expressions of those who would have been good authorities, may have, in a measure, been responsible for the view. We find in the writing of no less an authority than Dr. S. G. Howe the following, referring to the Massachusetts report before alluded to:—

“Several striking truths are seen to be the result of these inquiries. One of the most important is, that *eight-tenths* of idiots are born of a wretched stock; of families which seem to have degenerated to the lowest degree of bodily and mental condition. *This condition of the body is the result of intemperance*, or of excesses of various kinds, committed, for the most part, in ignorance of their dreadful consequences.” While there is much truth in this sentence, it is easily misunderstood. Intemperance in its broadest sense—the habitual over-indulgence of appetites, habitual over-exercise of mental or bodily functions, the constant submission to nervous strain and mental anxiety from whatever cause—these disqualify people to beget healthy offspring; and, alas! how much “liquor” has to do directly or indirectly in these matters.

Faribault, Minn., U.S.A.



#### ANCIENT MEDICAL DECLARATIONS.

ON looking over, a few weeks ago, the six volumes of the *Temperance Society Record*, published at Glasgow in 1830-35, our attention was arrested by the number of local medical declarations which were published in those early days, when teetotalism was scarcely known.

The first of these, published in July, 1830, and signed by forty-eight medical men in Dublin, including John Cramp-ton, M.D., Prof. Mat. Med.; J. Cheyne, M.D., Physician-General; and W. Stokes, M.D., was as follows:—“We,

the undersigned, hereby declare that in our opinion nothing would tend so much to the improvement of the health of the community as an entire disuse of ardent spirits, which we consider as the most productive cause of the diseases and consequent poverty and wretchedness of the working classes of Dublin.”

To this was added the still more emphatic testimony of “William Harty, Physician to the Prisons of Dublin,” who said:—“Being thoroughly convinced, by long and extensive observa-



tion amongst the poor and middling classes, that there does not exist a more productive cause of disease and consequent poverty and wretchedness than the habitual use of ardent spirits, I cannot therefore hesitate to recommend the *entire* disuse of such a poison, rather than incur the risks necessarily connected with its most moderate use."

EDINBURGH. — "We, the undersigned, do hereby declare our conviction that ardent spirits are not to be regarded as a nourishing article of diet; that the habitual use of them is a principal cause of disease, poverty, and misery in this place; and that the entire disuse of them would powerfully contribute to improve the health and comfort of the community." This document received the signatures of four professors of the medical faculty in the University of Edinburgh; of eleven members of the Royal College of Physicians; of the President and twenty-seven Fellows of the Royal College of Surgeons; and of thirty-four other medical practitioners—seventy-seven in all.

MANCHESTER. — "Being of opinion that the habitual use of intoxicating liquors is not only unnecessary but pernicious, we have great satisfaction in seconding the views of the Society, by stating our conviction that nothing would tend more to diminish disease, and improve the health of the community, than abstinence from inebriating liquors, to the use of which so great a portion of the existing misery and immorality of the lower orders amongst the working classes is attributable." Signed by seventeen doctors and surgeons.

BRADFORD. — "We, the undersigned, hereby declare that in our opinion nothing would tend so much to the improvement of the health of the community as an entire disuse of ardent spirit, which we consider as one of the most productive causes of disease and immorality, and, amongst the working classes, of poverty and wretchedness." Signed by thirteen medical practitioners.

BERWICK, NOVEMBER, 1831. — "We, the undersigned, do hereby declare

our conviction that ardent spirits are not to be regarded as a nourishing article of diet; that the habitual use of them is a principal cause of disease, poverty, misery and crime; that the habitual use of them particularly predisposes to that disease, with which we are at present threatened, the cholera morbus; and that refraining from the use of spirits would powerfully contribute to improve the health and comfort of the community." Signed by eleven physicians and surgeons.

KILMARNOCK, NOVEMBER 3RD, 1831 — "We do hereby declare, that the habitual use of ardent spirits is productive of many diseases, and often renders them incurable. It aggravates almost all acute diseases, and these are the most dangerous to the intemperate. Those addicted to ardent spirits sink rapidly under any inflammatory disease—their constitutions are so undermined that they can neither bear disease, nor the remedies necessary to remove it. It tends unduly to shorten life, by causing an undue excitement of the organs necessary to existence. It is our opinion that the disuse of ardent spirit would tend much to improve the health and comfort of the community, as well as diminish much existing poverty and immorality amongst the working classes." Signed by eight medical practitioners.

LEITH, FEBRUARY, 1832. — "We, the undersigned, hereby declare our conviction, that ardent spirits in any form are highly prejudicial to health, and that they contain no nutritive quality; on the contrary, that the daily use of them often gives rise to disease, and leads to poverty, misery, and death. We are persuaded that the use of spirits predisposes to that alarming malady, the cholera morbus, with which we are threatened: and we urge upon our townsmen to refrain from their use, as the best means of strengthening their constitution, and adding to their health and comfort—thus enabling them to withstand the attack of so violent a disease." Signed by eight medical practitioners.

CHELLENHAM, JULY, 1832. — "We, the undersigned, do hereby declare

that, in our opinion, ARDENT SPIRITS cannot be regarded as a necessary, suitable or nourishing article of diet; that they have not the property of preventing the accession of any complaints, but may be considered as the fruitful source of numerous and formidable diseases, and the principal cause of the poverty, crime, and misery, which abound in this country; and that the entire disuse of them, except under medical direction, would materially tend to improve the health, amend the morals, and augment the comfort of the community." Signed by twenty-six physicians and surgeons.

BRIGHTON, JULY, 1832.—"We, the undersigned, do hereby declare our conviction that ardent spirits are not to be regarded as a nourishing article of diet; that the habitual use of them is a principal cause of disease, poverty, and misery; and that the disuse of them, except for medicinal purposes, would powerfully contribute to improve the health and comfort of the community." Signed by eleven physicians, and thirty-one surgeons, including all the medical officers of the county hospital, of the dispensary, and the parish surgeons.

YORK, APRIL, 1833.—"We, the undersigned, declare our conviction, that ardent spirits are, to persons in health, unnecessary, and almost without exception pernicious; that their habitual use lays the foundation of many dangerous and afflicting maladies, tending at the same time to frustrate the means of recovery; and that their disuse, except for purposes strictly medicinal, would greatly contribute to the health, morals, and comfort of the community." Signed by twenty-four medical practitioners.

NOTTINGHAM, APRIL, 1833.—"We, the undersigned, hereby declare that ardent spirits are the source of numerous diseases and formidable accidents—that the abuse of them is injurious to the health of the community, and shortens very materially the duration

of life; and, further, that the entire disuse of them, except for medicinal purposes, would very much tend to preserve the health and vigour of body and mind." Signed by twenty-seven physicians and surgeons.

LINCOLN, NOVEMBER, 1833.—"We, the undersigned, do hereby declare that in our opinion ardent spirits cannot be regarded as a necessary or nourishing article of diet, that the habitual use lays the foundation of many dangerous and afflictive maladies, tending at the same time to frustrate the means of recovery, and that the entire disuse of them, except under medical direction, would materially improve the health and augment the comfort of the community." Signed by twenty-two medical practitioners.

LOSTWITHIEL, JUNE, 1835.—"Being of opinion that ardent spirits cannot be considered as a necessary, suitable, or nourishing article of diet, but that on the contrary, they gradually undermine in most cases the strongest constitutions, we have great pleasure in seconding the views of the Society, by stating our convictions, that their habitual use, even in small quantities, lays the foundation of many dangerous and afflictive maladies, both of the body and the mind, tending at the same time to frustrate the means of recovery; that intemperance is a principal cause of the crime, pauperism, disease, and misery in this country, and that the entire disuse of ardent spirits, except for purposes strictly medicinal, would materially tend to improve the health, amend the morals, and augment the comfort of all around." Signed by one physician and two surgeons.

Similar declarations were adopted by medical men in other parts of the country. The Leeds declaration (nearly the same as Berwick) was signed by forty-seven practitioners; Gloucester (same as Cheltenham), by fifteen, and Derby (same as Lincoln) by nineteen.

## SIR WILLIAM GULL ON ALCOHOL.\*

## ALCOHOL AS A MEDICINE.

ALCOHOL has but a subordinate value; and that value is chiefly as its action upon the nervous system of a sedative. Many diseases are now allowed to run their course without alcohol, and when we give it, we do not give it as we did formerly, with a view that it cured the disease, but with a view of calming the nervous system during the course of the disease.

In cases where there is a sound constitution and a young patient, any administration of alcohol might be deemed to be an interference with the natural course of the disease, and would not do good. I believe there is still an error with regard to the value of alcohol in disease. The prevalent error is, that alcohol cures the disease, whereas the disease runs its physiological course irrespective of the alcohol. The advantage of alcohol—if it has an advantage—is its effect on the nervous system for the time being, rendering the patient more indifferent to the processes going on. I am disposed also to believe, although I think we could not do without alcohol as a drug, that it is still over-prescribed. Under the shock of an injury, or the shock which the system may undergo by an operation, the nervous system has to be deadened, and I believe that alcohol is the best agent for that. It is called a stimulant, but we use it more as a sedative, in the same sense as that in which you would use opium.

In cases of feeble digestion alcohol is sometimes given to stimulate digestion. I should not be prepared to go so far. I should be prepared to advise the use of alcohol on certain occasions when a person was ill; but to say that persons should drink habitually—day by day—I should not be prepared to recommend. All alcohol, and all things of an alcoholic nature,

injure the nervous tissues *pro tempore*, if not altogether. You may quicken the operations, but you do not improve them. And even in a moderate measure they injure the nervous tissues and are deleterious to health.

Alcohol acts upon the brain, and causes the blood to flow more rapidly in the capillary vessels. I should like to say that a very large number of people in society are dying day by day, poisoned by alcohol, but not supposed to be poisoned by it.

In the case of inebriates, I should, in most cases, not be afraid to stop the use of alcohol at once and altogether; of course it depends upon the age of the patient. If there were no likelihood of doing any good at all, it does not matter very much what one prescribes; but if the patient were a young man, whose organs were good, that would be a case in which I should stop it. If a patient came before me as a drunkard, and not as a sick man, I would say, get rid of the alcohol at once. In the case of an habitual drunkard, to whom drinking had become second nature, I would, when he left it off, recommend nothing beyond good food. It would not at first supply the craving, but it would ultimately overcome it.

I do not see any good in leaving off drink by degrees. If you are taking poison into the blood, I do not see the advantage of diminishing the degrees of it from day to day. That point has been frequently put to me by medical men; but my reply has been, "If your patient were poisoned by arsenic, would you still go on putting in the arsenic?"

I should say from my experience that alcohol is the most destructive agent that we are aware of in this country.

## ALCOHOL AS A BEVERAGE.

I think that instead of flying to alcohol, as many people do when they are exhausted, they might very well drink water, or that they might very well take food, and would be very much better without the alcohol. If I am

\* From the evidence given by Sir William Gull, M.D., F.R.S., before the Peers' Select Committee on Intemperance, 13th July, 1877.

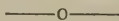
fatigued with overwork, personally, my food is very simple. I eat the raisins instead of drinking the wine. I have had a very large experience in that practice for thirty years. This is my own personal experience, and I believe it is a very good and true experience.

I should join issue at once with those people who believe that intellectual work cannot be so well done without wine or alcohol. I should deny that proposition and hold the very opposite. It is one of the commonest things in English society, that people are injured by drink without being drunkards. It goes on so quietly that it is even very difficult to observe. There is a great deal of injury done to health by the habitual use of wines in their various kinds and alcohol in its various shapes, even in so-called moderate quantities. It leads to the degeneration of tissues;

it spoils the health, and it spoils the intellect.

I think, as a rule, you might stop the supply of alcohol at once without injury. It is said in some cases the brain has entirely gone, from leaving drink off suddenly; but that is fallacious, the brain may have gone from previous habits. I hardly know any more potent cause of disease than alcohol, leaving out of view the fact that it is a frequent source of crime of all descriptions. I am persuaded that lecturers should go about the country lecturing to people of the middle and upper-middle classes upon the disadvantages of alcohol as it is daily used.

The public ought to know that of all the diluents or solvents for the nutritious parts of food there is nothing like water. Water carries into the system the nutriment in its purest form.



## ALCOHOL IN OLD AGE.

DR. G. M. HUMPHRY, F.R.S., of Cambridge, has devoted much attention to the condition of persons in advanced life. In 1880 his reference to the subject at the Cambridge meeting of the British Medical Association led to the appointment of a Collective Investigation Committee, the report of which, drawn up by Dr. Humphry, was presented to the Association in 1887, and published in the *British Medical Journal* on the 10th March, 1888. A volume\* has just been published by Dr. Humphry, embodying that report, with details of additional cases, and much interesting information concerning centenarians and other

persons who have lived above eighty years.

In the inquiry paper, which was forwarded to members of the Association, information was asked concerning the general condition, habits and circumstances, past and present, of persons who had attained or passed the age of eighty years, and their consumption of alcohol being one of the points embraced in the enquiry, temperance reformers are directly interested in the results that have been tabulated and published.

Of the fifty-two centenarians accounted for in Dr. Humphry's original paper, information as to alcohol was given with respect to forty-one, of which Dr. Humphry gives the following classification:—

“The total abstainers will not fail to observe that twelve of our centenarians had been through life, or for a long period, in their ranks; that twenty took little alcohol; that this was in the case of some of them very little;

\* “Old Age.” The results of information received respecting nearly 900 persons who had attained the age of eighty years, including seventy-four centenarians. By George Murray Humphry, M.D., F.R.S., Professor of Surgery in the University of Cambridge. (Cambridge: Macmillan and Bowes.)



and that eight were moderate. There were, however, some exceptions."

Later in the volume particulars are given of nineteen additional centenarians, who "seem on the whole to have enjoyed even a higher level of health and strength throughout life than those from whom the report in the former chapter was made; and they were also even more remarkable for their temperance in eating and drinking." From the detailed account of these nineteen cases we learn that three took no alcohol, and that most of the others took very little, some of them not regularly.

It is certainly a remarkable circumstance, when we remember that the temperance movement is only about sixty years old, that over 20 per cent. of the centenarians reported upon should be practically life-abstainers from alcohol; but the information given respecting persons from eighty to 100 years is still more striking.

The alcoholic return of the "present condition of 320 *men* from eighty to ninety is as follows:—None, 120; little, 120; moderate, 67; much, 13. Of 270 *women* of the same age, the following account is given:—None, 105; little, 117; moderate, 44; much, four.

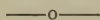
The returns regarding persons from ninety to 100 show similar results. Of 73 *men*, 21 took no alcohol; 26, little; and 26 were moderate, one taking a little too much occasionally. Of 105 *women* the report was:—None,

32; little, 48; moderate, 24; much, one.

On referring to the tables showing the "past history" of the cases reported upon, we find still further evidence of the large proportion of life-abstainers. Of 298 *men* between eighty and ninety, 28 are reported as having taken no alcohol; and the women of the same age show a still better result, 54 out of 232 being life-abstainers. Of 67 *men* between ninety and 100 only one could say he had never taken alcohol, but the proportion of women of the same age was 22 out of 92.

In commenting upon the returns of 824 persons between eighty and 100, Dr. Humphry points out that 36 per cent. take no alcohol, and that only 2½ per cent. are described as taking much; and he emphatically declares that "that which most contributes to the prolongation of life and the consummation of the inherited period, is 'temperance in all things,' especially in eating and drinking, and above all in alcoholic drinking.

We feel grateful to Dr. Humphry for so valuable a contribution to the statistics of health and longevity, and trust that his interesting and important work will receive the attention it deserves from the medical profession and the public. It cannot fail to encourage total abstainers in pursuing a course that undoubtedly helps to preserve health and prolong life.—*Temperance Record.*



## THE CONSUMPTION OF ALCOHOL IN HOSPITALS.

It is only necessary to look back a quarter of a century, and study the state of medical opinion on the subject of consumption of alcohol in hospitals, to become aware of the great change that has come over the spirit of things since that time. This change may be said to have been initiated by a work on "Vital and Economical Statistics of the Hospitals, Infirmarys, &c., for

the year 1863," due to the researches set on foot by Dr. Fleetwood Buckle, R.N. More recently the work has been carried on by the British Medical Temperance Association, and the statistics which this body is constantly bringing together are well calculated to help the movement on its way. The great difficulty is the impracticability of obtaining uniform statements

and reports from the various establishments and institutions, without which it is impossible to institute a proper comparison between them. Still, even with the imperfect data at present available, the necessity for such a reform is evident from the fact that from year to year since that time the amount of alcohol consumed in hospitals and similar institutions has been growing less, while the rate of mortality has as constantly been diminishing. It would be obviously unfair to claim the latter improvement in its entirety as a tribute to the principle of non-alcoholic treatment of disease, but it may fairly be urged as a conclusive argument that the comparative disuse of alcohol is not detrimental to the best interests of the patient. The decrease in the consumption of alcohol since 1863 is about 40 per cent., and this has been coincident with more than a corresponding increase in the supply of milk. According to some tables drawn up by Dr. Buckle, the total cost per head, if calculated on the rate which obtained in 1863, would last year have amounted to £147, whereas the amount actually spent was only about £58. The remarkable feature in the reduction is that it varies to an almost inconceivable extent in different institutions, and this is a point which calls for, and will doubtless receive, special attention at the hands of those who have the matter at heart. Out of 73 hospitals thus compared, only eight showed an increase in alcohol, and in only two of these did the increase attain noteworthy proportions. The London Fever Hospital has evidently taken the lesson to heart, for whereas in 1863, with 200 beds and 2,217 in-patients, the bill for alcohol was £650, the bill in 1888, when the number of beds was 180, and of patients 992, the alcohol bill was £150, as compared with £650, the amount for the year 1863, when the number of patients was only a little over twice as great, a reduction at per bed of £3 5s., com-

pared with 16s. Only one hospital in London, St. George's, still maintains its quantity of alcohol, and the high rate of mortality which obtained there during an epidemic of typhoid fever in 1872 (24 per cent.) is seized upon for the purpose of comparison with the results of the milk treatment in Dr. Gairdner's hands at the Glasgow Fever Hospital (12 per cent.). This is obviously unfair to St. George's Hospital, and to the scientific question at issue, and it is open to the retort that during a certain year at the London Temperance Hospital the mortality among the typhoid cases was 100 per cent., and in spite of the fact that several of the patients were children, in whom the mortality is usually very low. The Committee, it is true, disclaim any wish or intention to enter into the question of relative mortality, and it is a pity that they should have shown the cloven hoof by the foregoing comparison. The best course for reformers is to restrict their energy to collecting reliable data, leaving the public to draw their inferences. Attempts to demonstrate the superiority of the non-alcoholic over the treatment from which alcohol is not excluded would not only pave the way to statistical errors of the grossest kind, but might even cut the wrong way. The change which we have noted in this respect in hospitals is only a reflection of that which has manifested itself in the views of the profession generally. Patients themselves show a tendency to question the expediency of the routine use of alcohol, and they occasionally measure the skill and resources of their medical attendant by the readiness with which he prescribes it. The time is probably not far distant when, to quote the words of Dr. Richardson, "Alcohol should be removed from the dietary of hospitals, and relegated to the dispensary, to be prescribed by the staff in proper medicinal form."—*Medical Press and Circular*, March 5.



# British Medical Temperance Association.

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*President.*

DR. B. W. RICHARDSON, F.R.S.

## CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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*Honorary Secretary.*

Dr. J. J. RIDGE, Enfield, Middlesex.

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Mr. E. K. SOUTTER, King's College  
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Mr. H. CAREY VENIS, St. Mary's  
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Mr. J. J. LONG, Trinity College,  
Dublin.

Mr. C. A. THREADGALE, Cook's  
School, Dublin.

## NOTICE.

Members who have not yet paid their subscriptions for 1889-90 are earnestly requested to do so as early as possible.

## SUBSCRIPTIONS RECEIVED DURING DECEMBER, JANUARY, AND FEBRUARY.

*Twelve Shillings.*—C. H. Greenly, Esq.

*Ten Shillings.*—Surgeon-Major Robinson; H. Dixon, Esq.; Dr. Phillips, Surgeon-Major Kirwan, Dr. Kelynack, Dr. Whitaker, Dr. Scott.

*Seven Shillings and Sixpence.*—Dr. Young.

*Five Shillings.*—H. Gilford, Esq.; Dr. Wilson, Dr. Wicken, J. B. Nottage, Esq.; Dr. Watt, Dr. O'Gorman, Dr. Hardyman, Dr. Rowlands, Dr. Moffatt, Dr. Montgomery, Dr. R. Morton, Dr. T. Collins, Dr. Delahoyde, Surgeon-General Gunn, Dr. A. W. Russell, Dr. P. A. Young.

*Two Shillings and Sixpence.*—F. K. Soutter, Esq.; M. Sandeman, Esq.; F. W. Sydenham, Esq.; T. Gibson, Esq.

*One Shilling.*—G. Orr, Esq.; J. H. Smyth, Esq.

J. J. RIDGE, *Hon. Sec.*

Enfield, March, 1890.

## SPRING QUARTERLY MEETING.

THE quarterly meeting of the Association was held at the Medical Society's Rooms, Chandos Street, on Tuesday, 25th February, under the presidency of Dr. Richardson, F.R.S.

After the minutes had been read and confirmed, the PRESIDENT alluded to the lamented death of Mr. Harrison Branthwaite, F.R.C.S.Ed., one of their most active members, and moved that Dr. Ridge be requested to send a letter of condolence to Mrs. Branthwaite. The proposal was seconded by Dr. NORMAN KERR, and agreed to.

## ALCOHOL IN HOSPITALS.

Dr. JOHN MOIR then read the report prepared by Dr. Thomas Morton, Dr. Walter Pearce, and himself, regarding the consumption of alcohol in hospitals in 1863 and 1888, which is given in full elsewhere.

Dr. MORTON opened the discussion upon the report, and stated that most of the work had been done by Dr. Moir. The decrease in alcohol in hospitals was very satisfactory, being much more than was expected, and showed that the medical profession was not lagging behind in this work. He moved a vote of thanks to Dr. Buckle for his work of 1863.

The resolution was seconded by Dr. MOIR and agreed to.

Dr. NORMAN KERR moved a very cordial vote of thanks to the committee for their valuable report, from which he drew several conclusions. One was that in the administration of alcohol in hospitals a great deal depended upon the watchfulness of medical officers, as liquors were often given without their knowledge. Another deduction from the report was, that although it supplied no absolute proof of a lower mortality being secured by the entire disuse of alcohol than by a very guarded use of it, yet they were entitled to say that beneficial results had ensued from diminishing it. It was necessary, however, to be cautious in drawing general conclusions from figures without taking into account special circumstances. He thought it was very

important that the hospital staffs should be above suspicion in regard to drinking, and suggested that none of them should be allowed to drink even at meals when on duty.

The PRESIDENT was of opinion that if the report did not show that temperance men were absolutely right, yet it proved that they were not wrong, or serious results would have followed the diminished consumption of alcohol. He had found in some cases that a larger proportion of the alcoholic liquors charged had been consumed by members of the staff than by patients, and he thought managers of hospitals should be pressed to remove alcohol from their dietary. Much harm was done by the retention in some recognised text-books of injudicious remarks upon alcohol, which raised doubts in the minds of students and young practitioners.

Dr. RIDGE thought that the profession should, for the sake of their own reputation, speak less dogmatically than many of them did, regarding the supposed value of alcohol in medicine. If the large amount prescribed twenty-five years ago was wrong, they might also be wrong in prescribing it now as much as they did. Alcohol was not the sheet-anchor it was supposed to be. The report showed that the less alcohol they administered the better it was for the patient.

The resolution of thanks to the committee having been carried, it was acknowledged by Dr. MOIR.

Before the meeting broke up a resolution in favour of excluding alcohol from the dietary of hospitals, and relegating it to the dispensary, was unanimously agreed to.

## THE BRUSSELS CONFERENCE.

The following is a copy of the memorial sent by the President and Council of the British Medical Temperance Association to the International Conference at Brussels:

To M. le Baron de Lambermont.

Sir,—We, the undersigned, President and Hon. Secretary of the British



Medical Temperance Association, and representing over 400 British and Irish medical practitioners, desire hereby to express our earnest hope that the Conference will, along with other measures for the protection and advantage of Africa, recommend as of equal, if not greater, importance, the prohibition of the importation and sale of all kinds of alcoholic liquors. The society which we have the honour to represent is convinced that the use of these liquors is seriously injurious, especially to the young and to those uncivilised or semi-civilised races whose self-control is, on the average, far below that of Europeans and Americans. The use of alcoholic liquors, whose effect is temporarily to weaken self-control,

and, if habitually used, permanently to damage and paralyse the power of the will, must necessarily demoralise and hinder the progress and civilisation of these native races, leaving them the prey of degrading vices, the temptations to which they will be less able to resist, and becoming a fruitful source of crime, vice, disease, war, and death, besides hindering the development of civilised wants and the trade which is required to supply them.

We have the honour to be, M. le Baron,

Your obedient servants,

B. W. RICHARDSON, M.D., LL.D.,  
F.R.S., *President*.

J. J. RIDGE, M.D., B.S., B.A., B.Sc.  
Lond., *Hon. Secretary*.

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## Notes and Extracts.

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**CATHOLIC MEDICAL PRACTITIONERS.**—The Council of the Catholic Total Abstinence League of the Cross, of which Cardinal Manning is the President, are forming a "medical section" for the promotion of the objects of the League; and all Catholic medical practitioners will be asked to assist in the spread of the principles of total abstinence. It is stated that the Cardinal-President of the League will invite the co-operation of Catholic doctors, both in the metropolis and the provinces, in order that "the medical section" of the organisation may be both strong and influential.

**THE HEREDITARY CONSEQUENCES OF ALCOHOLISM.**—Madame Lunier, the widow of Dr. Lunier, has presented to the Société Française de Tempe-  
rance the sum of 1,000 fcs., which is to be awarded to the author of the best work on the following questions:—"What are the hereditary consequences of alcoholism and drunkenness?" "What are the means that should be taken to prevent these consequences being produced or for lessen-

ing their effects?" Works published during the last two years are, equally with manuscripts, admitted to competition. The manuscripts and printed works, which must be in French and bear the name and address of their authors, should be forwarded before December 31st, 1890, to Dr. Motet, general secretary to the society, at 161, Rue de Charonne, Paris.  
—*Lancet*.

**NOSTRUMS FOR INEBRIETY.**—The nineteenth annual meeting of the American Society for the Study and Cure of Inebriety was signalised by a dinner in honour of its first secretary, Dr. Joseph Parrish, who has for some years past been the president. In the congratulatory addresses of Drs. T. D. Crothers, Day, Mason, and others, special reference was made to the first International Congress on the subject in London in 1887. A report by a special committee gives some curious facts as to the composition of nostrums vaunted as effectual in preventing and curing inebriety. An analysis was made of fifty different

proprietary specifics, and each of these was found to contain alcohol varying in proportion from 6 to 47.5 per cent. Several of these preparations are advertised as "not an alcoholic beverage." In nineteen so-called "opium cures" morphine was detected. So far from curing inebriety, the president of a state chemical society testifies that he knows of men becoming drunkards through resorting to some of these widely advertised bitters for ordinary ailments. It ought to be made public that when inebriates think they can find useful medicinal remedies without either alcohol or opium in such compounds, they are more likely than not to be deceived. The committee denounced these "cures" in very uncompromising language.—*British Medical Journal*.

THE FORMATION OF GLYCERINE IN ALCOHOLIC FERMENTATION. — In a recent number of the *Zeitsch. f. Physiol. Chemie*, 13, 1889, Dr. L. V. Udransky gives a contribution to our knowledge of this subject. Pasteur had already shown that in alcoholic fermentation sugar was not completely decomposed into carbonic acid and alcohol, but that along with these other secondary products also arose, principally glycerine, to the average extent of 2.5 to 3.6 per cent., and succinic acid to 0.4 or 0.7 per cent. of the quantity of the fermented sugar. According to Pasteur, these two secondary products were as much the result of the decomposition of the sugar as the carbonic acid and the alcohol. The author, on the other hand, believes he is in a position to prove that the formation of these products, glycerine and succinic acid, really belongs to the circle of tissue-changes of the yeast cells. He allowed yeast, the glycerine of which was determined, to remain in water containing 6 to 12 per cent. of alcohol, from twelve to twenty-three days, the temperature ranging from 16 to 18 C., and at the end of the time again determined the quantity of glycerine. The yeast had increased its quantity of contained glycerine by 116.05 to 137.36 per cent., although it had no

sugar to increase upon. On following up the experiments the author discovered that the longer the yeast was in contact with a fluid the more glycerine was given off, so long as putridity did not take place. This further yielding up of glycerine coincided with death of the yeast cells. As regards the origin of the glycerine, it is probably due to decomposition of the lecithine, which, according to Hoppe-Seyler, is a constant constituent of yeast.—*Medical Press*, February 12.

INCREASE OF INSANITY IN PARIS.—A correspondent writes: The statistics published by the Prefecture of Police in Paris indicate a very rapid increase in the number of insane persons admitted into the special infirmary for the criminal classes and vagabonds of the capital. This is shown in a very startling form by the appended table:—

Year.	Males.	Females.	Total.
1872 ...	1,695	1,389	3,084
1876 ...	1,782	1,448	3,230
1880 ...	1,932	1,552	3,484
1884 ...	2,313	1,813	4,126
1888 ...	2,549	1,900	4,449

While the proportion of male to female insane persons was last year rather more than five to four, the proportionate increase has, within the last few years, been much greater among the men than the women (59 as against 40 per cent.), and M. Paul Garnier, who has made a very interesting analysis of these returns, demonstrates that the great increase of the last few years is due to the spread of alcoholic excess and the maladies which it brings in its train. The form of insanity known as "folie alcoolique" is twice as frequent now as it was fifteen years ago, and the number of persons placed under restraint on account of it has increased by 25 per cent. in the last three years. M. Garnier also shows that the disease has made as rapid progress in the one sex as in the other.—*Times*, February 26.

THE  
MEDICAL TEMPERANCE JOURNAL,  
July, 1890.

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Original Contribution.

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ALCOHOL AND DIGESTION.

By J. J. RIDGE, M.D., B.S. Lond.

It may appear strange that the effect of alcohol on the process of digestion should be a matter still open to dispute. Not that there has been any lack of dogmatism on the subject. There have been many emphatic statements, but these have not always been based on observation, and have represented rather what the writer has thought ought to take place than the actual facts.

It seems to be taken for granted that a small quantity of alcohol aids digestion. Dr. Lauder Brunton states the view taken by most physiologists, that alcohol increases the secretion of gastric juice and also the movements of the stomach. The inference is drawn that more food can be digested, and that the process is more perfect and rapid. But when we seek for any evidence of this we find it is all a matter of inference, with some supposed confirmation from the sensations of those who take it.

If we seek to discover the action of alcohol on the complex processes which go to make up the act of digestion, we find that experiment has settled some points very definitely. It has long been known that alcohol will precipitate pepsin from its solution in gastric juice. In so far as it does that it must deteriorate its quality. Sir William Roberts has tested this action very thoroughly.\* He found that spirits, if not exceeding

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\* Dietetics and Dyspepsia, pp. 40 to 45.

5 per cent., exercised no retarding effect on the chemical processes of digestion. The same result was obtained with 5 per cent. of port, 10 per cent. of hock, claret, light table beer and lager beer. A slightly increased amount was decidedly detrimental, prolonging the process by several minutes. Five per cent. of sherry was injurious, and so was 10 per cent. of Burton ale. None of these caused any acceleration of digestive solution. The only form of liquor that seemed to accelerate it was champagne, not above 5 per cent. This result he attributes to its effervescence, by which the fluid is more agitated; all these experiments having been done outside the body. It may be taken then as proved beyond contradiction that alcohol does not accelerate the chemical process of digestion, and, above a very small amount, actually retards it. These experiments confirm those of Dr. H. Munroe performed many years ago.

But it must not be forgotten that alcohol is very readily and very rapidly absorbed from the stomach. Dr. Percy found that a very few seconds sufficed for alcohol which had been injected into the empty stomach of a dog to be found elsewhere. In one case the dog fell down instantly, the heart ceased to beat in two minutes, and the stomach was found empty. There can be no doubt that when mixed with a full meal the process of absorption is longer, and the food itself may be so hardened as to be digested with greater difficulty. Dr. Beddoes, in his well-known experiments on dogs, proved this. Two young puppies were taken from the same litter; both were fed alike, and to one was then given three drachms of alcohol with one of water. After five hours both were killed, and it was found that the stomach of the one which had had the alcohol was twice as full as that of the other; the bits of flesh were firm and angular, while without alcohol they had become much softer.

Even if it be true that there is an increased secretion of fluid from the walls of the stomach after the imbibition of alcoholic liquors, we have no evidence that it is greater than follows the intaking of any other sapid fluid, and we have positive evidence that the secretion is not so effective as normal gastric juice. It is overlooked that secretion from the stomach-coats is not necessarily true gastric juice containing pepsine. Mucus is secreted, and there may be an outflow of almost pure fluid, with no digestive power, which is not unfrequently ruminated into the mouth, constituting the symptom known as *waterbrash*. The notion, therefore, that increased exudation of fluid, as a result of alcohol drinking, must indicate increased digestive power, is a pure assumption.

The notion that alcohol increases the movements and general activity of the stomach is equally baseless. It is surmised partly



from the fact that there is sometimes eructation of flatus after its use. This proves nothing beyond a relaxation of the sphincter at the entrance of the œsophagus at the cardiac end of the stomach. The known action of alcohol as a paralyzer of sensation and reflex action would lead one to expect the results which we actually find. We are assured of the relief of uneasy sensations, which means that nervous filaments and endings are benumbed. We are told that spasmodic action is checked, and this accounts for the escape of the flatus upwards and for a probably earlier escape of food through the pylorus. These benumbing and composing influences of alcohol may render the individual less conscious of the morbid condition of his stomach, but they cannot be said to assist a healthy or even a feeble digestion, and wherever it has been possible to see the actual result on food it has been abundantly clear that the process of digestion has been checked and not accelerated.

Confirmation of these views comes from abroad. The *Lancet* has published the following note of experiments made by Dr. Blumenau. We have not been able to verify the reference, but we accept it on the authority of our contemporary.

“Dr. Blumenau, in a preliminary communication to the Russian medical Journal *Vrach*, publishes certain conclusions he draws from his experiments on the effect of alcohol on the function of the stomach in healthy people. The author says that in the beginning of the digestive process the functional activity of the gastric juice, the general acidity, as well as the amount of hydrochloric acid and the corresponding digestive power of the juice, are diminished; and in people who are not used to alcohol this decrease is even more distinct. The stronger the solution of alcohol, the greater is its effect. During the first three hours or a little less after its consumption the digestion is slower, but after that it becomes much quicker, to compensate, as it were, for the previous loss of time. The quantity of acid in general, and that of hydrochloric acid in particular, rises from  $1\frac{1}{2}$  to 2 per cent. above the normal and the gastric juice has consequently a greater digestive power in the later hours. The secretion of the gastric juice also lasts longer and is more ample when alcohol is consumed. The activity of the pepsine remains about the same, although the coagulation of milk seems to be somewhat slower at the beginning. The motor power of the stomach and its capacity for absorption are diminished in direct proportion to the strength of the alcoholic solution.”

This gentleman finds the process of digestion delayed by alcohol, but it seems that through this delay, whether by fermentation or other process, the acidity of the stomach is increased. By this means nature makes an effort to get rid of

the irritating, undigested substances. The secretions are increased, but, as I have above stated, the digestive power of the secretion is certainly not increased in proportion, and therefore the fluid cannot be pure, natural gastric juice. Dr. Blumenau confirms the view I have always taken as to the lessening of the movements of the stomach. He also asserts that absorption is diminished as well. Not knowing the facts on which this conclusion is founded, it is necessary to accept it with caution. It is, nevertheless, true that alcohol hinders osmosis by its power to alter the colloidal condition of the membranes. There cannot be any reasonable doubt that alcoholic liquids hinder and do not assist digestion, and that any apparent assistance which they may render is due to their action in other directions, and notably to their benumbing effect on the gastric nerves, by which the sensations are perverted and the judgment misled.

Of chronic stomach diseases induced by large doses of alcohol there are many, but these are beyond dispute: it is the effect of the small, moderate quantities that are so misunderstood. It is time that the false ideas on the subject were dissipated.



## Miscellaneous Communications.



### DRUNKENNESS AND DIPSOMANIA: MEDICAL AND LEGAL PREVENTIVES AND REMEDIES.\*

By W. T. GAIRDNER, M.D., LL.D. Edin.,

*Professor of Medicine in the University of Glasgow, Physician in Ordinary to Her Majesty in Scotland.*

THAT great lawyer, Sir Edward Coke, who in 1593 occupied the position of Speaker of the House of Commons, but who in respect of his other numerous offices and large experience must be considered as by far the most conspicuous embodiment of the legal traditions of the age of Elizabeth and James, has transmitted to us a curious expression, which, taken in connection

with what we know from other sources as to the current beliefs of his time, may perhaps form an authoritative text for the present discourse. A drunkard, according to Coke, is "*voluntarius dæmon*"—i.e., a man *possessed* dominated by an evil spirit not his own, but whom he chooses, of his own accord (as it were) voluntarily, to invite into possession. Whereupon follows the strictly legal consequence, that while the fact of possession—or, as we should say, of *insanity*—is admitted by implication, the privilege attaching to the fact is avoided or set

\* An Address delivered at the Inaugural Meeting of the Midland Medical Society, 16th November, 1889, of which a report appeared in our January number.

aside; for, he adds, the drunkard "hath no privilege thereby, but what hurt or ill soever he doeth, his drunkenness doth aggravate it."\* And this conclusion, at least as regards the essence or principle of it, is equally affirmed by Coke's great rival Lord Bacon, in the only allusion to the subject that I can find in his writings:—"If a madman commit a felony, he shall not lose his life for it, because his infirmity came by the act of God; but if a drunken man commit a felony, he shall not be excused, because his imperfection came by his own default."†

The consent of these two great authorities might be considered as decisive with regard to the traditions and precedents of English law; but in Plowden's "Commentaries" we find a similar idea sufficiently clearly expressed, and referred back to Aristotle as its source.‡ And Sir Matthew Hale, in his "Pleas of the Crown," gives a well-seasoned view of the

\* Coke, *Inst.* 247. Blackstone, who quotes this passage from Coke, rather strengthens than weakens the last statement, when he says that "our law looks upon this (drunkenness) as an aggravation of the offence rather than as an excuse for any criminal misbehaviour." — *Commentaries*, Book iv., ch. 2.

† *Maxims of the Law*. Reg. V. Lord Bacon's works. Spedding, Ellis, and Heath's edition, vol. 7, 346. 1870.

‡ Plowden, *Comm.*, 19. "If a man breaks the words of the law through *voluntary* ignorance, there he shall not be excused. As if a person that is drunk kills another, this shall be felony, and he shall be hanged for it, and yet he did it through ignorance; for when he was drunk he had no understanding nor memory; but inasmuch as that ignorance was occasioned by his own act and folly, and he might have avoided it, he shall not be privileged thereby. And Aristotle says that such a man deserves double punishment, because he has doubly offended, viz., in being drunk, to the evil example of others, and in committing the crime of homicide. And the act is done *ignoranter*, for that he is the cause of his own ignorance; and so the diversity appears between a thing done *ex ignorantia* and *ignoranter*."

whole matter as it was understood in his day (middle of 17th century), as follows:—

"The third sort of *Dementia* is that which is *dementia affectata*, viz., drunkenness. This vice doth deprive men of the use of reason, and puts many men into a perfect but temporary phrenzy; and therefore, according to some civilians, such a person committing homicide shall not be punished simply for the crime of homicide, but shall suffer for his drunkenness answerable to the nature of the crime occasioned thereby; so that the general cause of his punishment is rather the drunkenness than the crime committed in it; but by the laws of England such a person shall have no privilege by this voluntary contracted madness; but shall have the same judgment as if he were in his right senses.

"But yet there seem to be two allays to be allowed in this case.

"1. That if a person by the unskilfulness of his physician, or by the contrivance of his enemies, eat or drink such a thing as causeth a temporary phrenzy, as *aconitum* or *nuxvomica*, this puts him into the same condition in reference to crime as any other phrenzy, and equally excuseth him.

"2. That although the *simplex* phrenzy occasioned *immediately* by drunkenness excuse not in criminals, yet if by one or more such practices an *habitual* or fixed phrenzy be caused, though this madness was contracted by the vice and will of the party, yet this habitual and fixed phrenzy thereby caused puts the man in the same condition in relation to crimes, as if the same were contracted involuntary at first."

This passage is of singular importance, as indicating the approach to a recognition in English law of the position of a man who is so demented by drink as to be no longer his own master; and although, perhaps, the "fixed phrenzy" here alluded to can scarcely be construed so as to include the case of the habitual drunkard, merely as such, it opens the way to all the questions that fall to be considered in the present address.

The law of Scotland on this subject is thus stated by Baron Hume (vol. i., p. 45), with certain practical suggestions which may serve to illustrate the preceding citations:—

“The law of Scotland views this wilful distemper with quite a different eye from what is the visitation of Providence; and if it does not consider the man’s intemperance as an *aggravation*, at least sees very good reasons why it should not be allowed as an *excuse*, to save him from the ordinary pains of his transgression. Not to mention that we cannot well lay claim to favour, on account of that which itself shows a disregard of order and decency, how are the different degrees of ebriety to be distinguished, or the real ebriety to be known from that which is affected? or what protection could we have, if this were law, against the attempts of such as might inflame themselves with liquor on purpose to gain courage to indulge their malice, and an opportunity to do it safely? Besides, if there were no risk of such contrivances, it is indispensable to guard the safety of the decent and peaceable part of the community, who would otherwise be at the discretion of the dissolute and worthless.”

But he goes on to say that the rule is not quite absolute in cases where the offence is chiefly a violation of order, &c.

As I do not propose on the present occasion to deal in any very exhaustive manner with the question of legal responsibility, I will only allude further to a modification in practice of the effect of the law in Scotland, first brought under my notice by the late Lord Deas, a judge of vast experience in criminal cases, and reputed to be rather uncompromising than otherwise in his judgments. On the occasion of my delivering the Morison lectures on Insanity in 1879,\* his lordship not

only attended the lectures throughout, but gave the benefit of his remarks on various points; one of these being the one now in question. Lord Deas then stated that, while entirely concurring in the principle that drunkenness, and even habitual drunkenness and allied conditions, such as delirium tremens, when not amounting legally to insanity, form no excuse for crime, he had been able, in two such cases, to establish a precedent in favour of reducing the quality of the offence from murder to culpable homicide. These two cases may well detain us for a moment, inasmuch as, even in allowing this important modification, they illustrate in the strongest manner the tendency of the law to disown insanity as a defence, whenever the mental disorder is attributable to alcoholic excess.

The first case referred to by Lord Deas is that of a judicial charge given by him, tending to establish, if not a new principle, at least a new precedent, in law, according to his lordship, viz., that in a case charged as murder, the state of mind of the accused (as affected by habitual drunkenness) may be an element for the consideration of the jury in deciding the question between murder and culpable homicide; even when there is no room legally for directing an acquittal on the ground of insanity. This case, which occurred in 1867, was that of an Aberdeenshire proprietor “habitually and irreclaimably addicted to drinking,” who caused the death of his wife by stabbing her with a carving-knife, admittedly on very slight provocation. The defence was that “at the time of the alleged act the prisoner was insane.” There was, in fact, no considerable conflict of evidence, medical or other, in this case. The habit of constant drinking to excess, carried on for more than twenty years, had not indeed produced well-marked insanity, but only such an amount of weakness of mind as was apparent to

\* Delivered at the Royal College of Physicians of Edinburgh, under a bequest to the College by the late Sir Alexander Morison; and open to the Fellows of the College, and to the members of the legal and medical profession and others, on appli-

cation. Under the title “Insanity: Modern views as to its Nature and Treatment;” part of the earlier lectures of this course was published in 1855, by Messrs. James Maclehose & Sons, Glasgow.



several witnesses, and even to his own lawyer in going over his correspondence, so that he regarded him as "at times not quite sane." There was also the tradition (not, however, established by medical evidence) of a sunstroke in India, and of something approximating to epileptic fits after his return to this country. But above all, there was the history of drinking habits so long continued and excessive that from 1846, when he made a voluntary retreat for six months to an institution intended for reformation of drunkards (but apparently very ineffectual for its purpose), to 1867 he could hardly ever be restrained, and was regarded by various medical men as "weak-minded, wayward, and eccentric," though not sufficiently insane to be placed in confinement under certificates.

The facts of the case showed that the homicidal assault upon his wife took place when he had had liquor, but was not obviously drunk, and that it was probably provoked by his displeasure at her having "hidden a pint bottle of whisky and some money on the night in question to prevent him getting more drink."

It is worth while to remark that evidence as to the existence of positive insanity in an uncle, grand-uncle, and two aunts, who were known by Dr. Dyce, of Aberdeen, to have been inmates of a lunatic asylum, was excluded by the Court as inadmissible in law.

Lord Deas said, "There remained the question whether the offence was anything short of murder. And here his lordship said that it was difficult for the law to recognise it as anything else. On the other hand, however, he could not say that it was beyond the province of the jury to find a verdict of culpable homicide if they thought that was the nature of the offence. The chief circumstances for their consideration with this view were:—(1) The unpremeditated and sudden nature of the attack; (2) the prisoner's habitual kindness to his wife, of which there could be no doubt, when drink did not interfere; (3) there was only one stab or blow—this, while not,

perhaps, like what an insane man would have done, was favourable for the prisoner in other respects; (4) the prisoner appeared not only to have been peculiar in his mental constitution, but to have had his mind weakened by successive attacks of disease. It seemed highly probable that he had a stroke of the sun in India, and that his subsequent fits were of an epileptic nature. There could be no doubt that he had had repeated attacks of delirium tremens; and if weakness of mind could be an element in any case in the question between murder and culpable homicide, it seemed difficult to exclude that element here. . . . The state of mind of a prisoner might, his lordship thought, be an extenuating circumstance, although not such as to warrant an acquittal on the ground of insanity; and he could not therefore exclude it from the consideration of the jury here, along with the whole other circumstances, in making up their minds whether, if responsible to the law at all, the prisoner was to be held guilty of murder or of culpable homicide." The jury unanimously found the prisoner guilty of culpable homicide; and he received a sentence of ten years' penal servitude.—*Irvine's Justiciary Reports*, vol. v., p. 479.

The second case, *H.M. Advocate v. Andrew Granger*, occurred in September, 1878 (*Scottish Law Reporter*, vol. xvi., p. 253), and affords even a more curious glimpse than the preceding one into the legal precedents as regards crimes committed under the influence of drink. The case was charged by the Crown as murder; but here also, under the advice of the judge, a verdict of culpable homicide was returned by the jury. In the interval, however, it is desirable to note (though not having any very direct relation to our present subject) that a case had occurred of theft, in which Lord Deas claims to have applied the same principle of a modification of the penalty in accordance with weakness of mind short of legal insanity, so as to reduce a sentence which might probably have been one of penal servitude to one of six months' imprisonment. This case need not

detain us, except in so far that the fact that its being referred to at all as a precedent shows how sparingly and tentatively, as it were, even Lord Deas had in the course of eleven years been able to bring into operation what he evidently regarded as an important innovation. Andrew Granger's case was confessedly a case of pure delirium tremens, leading directly to homicide under the influence of the mania of suspicion, so familiar to all of you as a common feature of that disease. There was practically no dispute as to this. Lord Deas held that by the theory of the law as applied to offences arising from drink, the man, if he knew that he was committing a crime at all, was responsible, and the legal penalty of a verdict of guilty of murder would of course have been death. But he also held, as in the preceding cases, that aberration of mind *not amounting to insanity* may legitimately form an element in the question between murder and culpable homicide; and that the case of acutely developed delirium tremens formed one to which this description was applicable. Now here, I confess, my medical instincts wholly revolt from the position which Lord Deas attributes to the law. I do not presume to say that the actual verdict in this case, and the penalty arising from it, were not legal; but what I do say is that if the mania of suspicion arising from pure delirium tremens is *not* to be construed as insanity, then I do not know any other kind of mania, and especially of transitory mania, witnessed in asylums or elsewhere, which is capable of being so construed. I accordingly wrote to Lord Deas that, whatever the legal consequences, had I been asked the question in the witness box in this case, I should not have had the slightest difficulty or doubt in saying that Granger was insane at the time he did this act; and further that his insanity was of a kind that in all probability totally deprived him for the time being of self-control quite as much as in any ordinary case of mania.

As this address, however, is not intended to cover the whole vast question of the complications arising in law as

between insanity and drink, but only so much of it as bears on the application of preventive legislation, I shall merely indicate, without discussion, what appears to me to be the outcome of the preceding remarks. We shall hardly go far wrong if we hold, with Coke and Sir Matthew Hale, that even the most simple act of drunkenness is, in fact, a kind of insanity, or *dementia affectata* (as Hale calls it), which differs from other insanities chiefly in being voluntarily brought on or provoked, and also more transitory than most of them. But the first of these elements of difference, which Coke had set forth in the remarkable expression of the "*voluntarius dæmon*," is held to be of such importance as altogether to reverse the presumptions in law as to the irresponsibility of insane persons, and, in the opinion of some jurists at least, to imply even an aggravation of the crime, or at least to deprive the criminal of all "*privilege*," that is, of all favourable consideration as regards his offence and its punishment, unless it can be shown otherwise that the offence was not "*voluntary*," either by reason of insanity of some other kind, or by the drunkenness itself being involuntary, as Sir Matthew Hale very clearly puts it. And in his admission, that "*an habitual or fixed phrenzy*"—even when "*contracted by the vice and will of the party*" (that is to say, through habitual or practically uncontrolled drunkenness) constitutes a valid excuse or "*allay*" in respect of punishment for crime, putting the criminal "*into the same condition in reference to crime, as any other phrenzy*," we have, I suppose, the ultimatum of the law of England as respects the criminal responsibility of the drunkard.

Now I believe it is the opinion of almost the entire medical profession that the intricate questions connected with the responsibility of the drunkard for crime cannot be adequately dealt with under the present state of the law; but I am not prepared, on the present occasion, to enter more largely into this subject, and in the remainder of this address I propose to confine

myself to the question of prevention, as aided by legal restraints. To prevent misconception, however, I may add that I do not share the views of those among us who, by looking upon inebriety or habitual drunkenness, *entirely* as a disease, would practically annihilate or minimise the sense of responsibility in the drunkard. It has always appeared to me a mere waste of time to discuss how far drunkenness is a disease, and how far it is a vice. In the great majority of cases of habitual drunkenness, it is both the one and the other—a vice, because it consists essentially of yielding to a temptation which ought to be resisted, and of which the drunkard, of all men, best knows that it ought to be resisted; a disease, because the alterations, both of function and of structure, that follow the constant use of the stronger alcoholic stimulants to excess, amount in many cases to well-marked organic changes in almost every part of the body, and probably in all cases, sooner or later, to a merely physical decay affecting both body and mind. I am, therefore, not at all disposed to recoil from the application of Coke's principle, that the drunkard, speaking generally, is "*voluntarius dæmon*," and therefore punishable. But just because the stern necessity of maintaining the law as "an avenger to execute wrath" compels us to give effect to the "voluntary" element in a drunken frenzy, and to consider it, with Sir Matthew Hale, as a *dementia affectata*; we may reasonably hold that in proportion as this voluntary element is manifestly subverted and in the end, gradually withdrawn under the influence of long-continued indulgence, the protection of the law ought to be thrown around the victims of this frightful tyranny. It is not at all necessary that in advocating a preventive treatment of the habitual drunkard, we should close our eyes to the fact that he is, in all or in most cases, responsible in some degree for his own wretchedness and degradation. What we maintain is, that the failure of our existing system demonstrates, and the experience of every medical man confirms, the truth that

the habitual drunkard is in only too many cases absolutely only a *slave* to his vice; or rather to the subtle and long-continued workings of that "invisible spirit of wine" that "enemy put into men's mouth to steal away their brains," which Shakespeare, no less than Sir Edward Coke, recognised as a kind of demoniac possession.\*

I do not suppose that anyone sufficiently interested in this sad subject to be present in this room to-night can require proof of the fact that the habitual drunkard is, as matters stand at present, usually also an utterly irclaimable drunkard. This fact has been so often attested by men of the largest experience and of the most widely differing schools of thought, that it may be discussed quite apart from the more or less technical question whether, and how far, such an irclaimable drunkard is to be considered as insane. In the admirable report presented to the House of Commons, in 1876,† the whole subject is in fact so discussed, and the unanimous opinion alike of the members of the Committee, and of the numerous skilled witnesses examined, is contained in the following brief but weighty sentences:—

"That there is entire concurrence of all the witnesses in the absolute inadequacy of existing laws to check drunkenness, whether casual or constant; rendering it desirable that fresh legislation on the subject should take place, and that the laws should be made more simple, uniform, and stringent."

"That small fines and short im-

\* *Orhelo*, Act II., Scene 3.

† Report from the Select Committee on Habitual Drunkards: together with the Proceedings of the Committee, Minutes of Evidence, and Appendices. The Committee included, amongst others, Mr. Donald Dalrymple as Chairman, Dr. Lyon Playfair, Sir Harcourt Johnstone, Mr. Samuelson, Mr. Akroyd, Lord Claud Hamilton; and among the witnesses examined were the late Dr. Anstie, the late Dr. Skae, Dr. Crichton Browne, Dr. Arthur Mitchell, Governors and Officers of Prisons, Chief Constables, Lawyers, and heads of Inebriate Asylums in this country and in America.



prisonments are proved to be useless, as well by the testimony of competent witnesses, as by the fact that the same individual is convicted over and over again, to even more than 100 times."

"That occasional drunkenness may, and very frequently does, become confirmed and habitual, and soon passes into the condition of a disease uncontrollable by the individual, unless indeed some extraneous influence, either punitive or curative, is brought into play.

"That self-control is suspended or annihilated; moral obligations are disregarded; the decencies of private and the duties of public life are alike set at nought; and individuals obey only an overwhelming craving for stimulant to which everything is sacrificed."

"That the absence of all power to check the downward course of a drunkard, and the urgent necessity of providing it, has been dwelt upon by nearly every witness, and the legal control of an habitual inebriate, either in a reformatory, or in a private dwelling, is recommended, in the belief that many cases of death resulting from intoxication, including suicides and homicides, may be thus prevented."

"That this power is obtained easily, at moderate cost, and free from the danger of abuse and undue infringement of personal liberty, has been stated in evidence by quotations from American and Canadian Statutes, as well as by the witnesses from America."

These words seem to me to cover the whole ground, and they render it quite unnecessary here to trouble you with yet another lengthened expression of opinion upon the subject, or upon the manifold and subtle associations of what everyone admits to be insanitary proper, with the vice or disease of drunkenness. To me, individually, it is abundantly clear that madness, or insanity, is at once the parent and the child of the drink-habit. The parent, because it too often happens that unstable nervous systems—the sad inheritance, perhaps, of several generations—become an easy prey to the habit. The child, because continued indulgence in the

stronger stimulants, even with previously intact nervous systems—and much more, of course, in such as were primarily unstable—has a terrible and a cumulative tendency to give rise to many other forms of insanity beside delirium tremens. In such complicated cases cause and effect are often so subtly linked together that not the most skilled observers can disentangle them so as to present a clear issue to a court, or to define in a particular case what is insanity and what mere vicious indulgence. And I would urge that—except in relation to the question of responsibility for crime, already alluded to—there is really no object to be served in attempting this all-but-impossible distinction. For, if it is once conceded that an expediency of the highest kind, in respect alike of the victim himself and his family, requires a measure of legal restraint to be applied to the otherwise incorrigible drunkard, it becomes a matter of minor importance, indeed mainly an academical question, whether such a drunkard is to be regarded as technically insane or not.

It is now more than thirty years since my own convictions on this subject were carried to the point above mentioned in consequence of the singularly luminous exposition of the whole subject by the late Sir Robert Christison, in a lecture before the Royal College of Surgeons, on 19th March.\* Since then, a provision was grudgingly introduced into one of the Lunacy Acts (29 and 30 Vic. cap. 51) to the effect that an inebriate might voluntarily apply to a lunatic asylum for treatment. But this provision, though well intended, has for very obvious reasons done almost no good. Whether an habitual drunkard is ever insane or not, to ask him to declare himself to be so was practically to court defeat, as every one must know who has had to do with this unfortunate class at all. In 1870, the late Dr. Donald

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\* Afterwards published under the following title—"On Some of the Medico-Legal Relations of Intemperance." By Robert Christison, M.D., &c. Edinburgh: Adam and Charles Black. Pp. 60. 1861.



Dalrymple, M.P., introduced a Bill upon the subject, but only succeeded in advancing opinion upon it so far as to allow of the appointment of the Committee above referred to, two years later. Of this Committee's labours I have already expressed the very high appreciation which I think every one must feel after reading their report and evidence in detail. Nothing in it is extreme or paradoxical in statement; it expresses the unanimous opinion of a group of legislators, fairly representative, it may be assumed, of that highly composite ideal, John Bull himself; and certainly not less disposed than John Bull to value that glorious palladium—"liberty of the subject"—in every reasonable view of it. Yet these fifteen good men and true, being confronted with the evidence of actual facts through the mouths of numerous intelligent witnesses, had no difficulty at all in seeing their way to the conclusion, that to speak of "liberty" in connection with incontrollable drunkenness (whether insane or not), is in very serious earnest a total abuse of the word. Every drunkard, indeed, is for the time being a slave to his "voluntarius dæmon." The irreclaimable drunkard is tenfold—nay, a hundredfold, a slave; and can only be restored to anything at all resembling liberty by putting him under some restraint. This truth the Committee of 1872 had the courage and good sense to proclaim in connection with a very carefully considered series of suggestions for legislation, which I am afraid time will not allow of my setting forth to you in detail this evening; but on these lines, I may say in general terms, I believe that legislation must ultimately proceed, if it is ever to do any good at all. I have no hesitation in affirming that the more this valuable report is diligently studied, the more will its conclusions appear to have been carefully framed and moderately expressed; and sooner or later the stolid resistance, which has hitherto defeated every attempt at really effective legislation, must inevitably give way before arguments and facts so irresistibly confirmed by medical experience. Up to the present time, however, John

Bull may be said to have set up his back, and practically to hold the field against all comers, in the name of the "liberty of the subject." Hence, perhaps, the present attempt to explore the Midland Counties—possibly one of his strongholds—through the medium of this Society.

In 1877 Dr. Cameron, M.P. for Glasgow, brought in a bill which, in general, was intended to proceed upon the lines of the recommendations of this Committee. Two years later, taught by experience as to the delay and obstruction which his first effort had encountered, Dr. Cameron submitted to have his bill shorn of its most essential and vital element—the power of compulsory detention; and in this emasculated, and therefore inefficient, condition it passed the House of Commons, and was afterwards piloted through the House of Lords by the late Lord Shaftesbury, as "The Habitual Drunkards Act, 1879." The Act defines an habitual drunkard as a person who, *not being amenable to any jurisdiction in lunacy*, is, notwithstanding, by reason of habitual drinking of intoxicating liquor, at times dangerous to himself, herself, or others, or is incapable of managing himself or herself, and his or her affairs. Unfortunately it provides for voluntary admission only, and therefore is bound to be without any result as regards the great majority of incontrollable drunkards. Dr. Cameron has frankly confessed that, in despair of carrying his Bill, he had to be satisfied with getting in the thin end of the wedge. All that can be said is that, for the purpose in view, the edge is so very thin as to be almost unfelt. In 1888, however, this Act, originally limited to ten years, was rendered permanent by a short Act, which was obtained with little difficulty. Both Houses of Parliament, therefore, have accepted finally, the principle that an habitual drunkard, who will confess himself to be such, and will apply to a magistrate to be detained, may be detained, under proper supervision, in a house specially licensed for the purpose. There is, therefore, now on the Statute Book

an Act providing at least a machinery on which a more efficient legislative measure might be founded, by certain improvements in detail, and by adding provisions for compulsory detention, properly guarded against abuse.

Although no further legislation has taken place on this subject, Mr. Charles Morton, W.S., Edinburgh, who formerly held, under several Governments, the important post of Crown Agent, has occupied himself since 1887 with drafting a bill to apply to Scotland only, and intended to be called the "Restorative Homes (Scotland) Act." Its objects are explained in a memorandum, which contains a very useful sketch of the whole subject. This draft bill was brought under the notice of the Marquis of Lothian, as Secretary for Scotland, in January, 1888, backed by a strong letter commending it to his lordship as at least a basis for such legislative action as the Government might be disposed to approve. This letter was signed by numerous representative men in Edinburgh, Glasgow, Dundee, and Aberdeen; and it was understood at the time that the Government had favourably entertained the subject with a view to legislation, and were even occupied with a bill of their own. As yet, however, nothing has followed in Parliament from this new move; but Mr. Morton's draft bill has been in a general way supported by the British Medical Association,\* and has been the subject of a long and most interesting discussion in the Edinburgh Medico Chirurgical Society,† which may be considered to embody all the latest suggestions on the subject. The society was by no means unanimous. One obvious objection to Mr. Morton's draft bill was clearly brought out in the course of the discussion—viz., that it might be regarded as a "class" bill, and even

as one favouring the wealthy and well-to-do class at the expense of the poor or of the general ratepayer. But, all the same, this valuable discussion has brought out a great preponderance of opinion in Scotland in favour of the general principle of the bill, not only in the medical but in the legal profession; and Mr. Morton assures me privately that the opinion of the latter in Scotland stands in marked contrast with much of what we hear as to legal opinion in England, and is by no means opposed to protective and preventive legislative on behalf of the habitual drunkard. The deliverance of the society upon the whole subject, after a full discussion, and with ultimate unanimity, was as follows: "That the society memorialise the Secretary of State for Scotland and the Lord Advocate, praying the Government to initiate legislation for Scotland on the lines indicated in Mr. Charles Morton's draft Restorative Homes Bill, or in other ways that may seem to them in their wisdom to be more desirable, to provide compulsory powers of control and detention of habitual drunkards in properly regulated houses." And so the matter stands, so far as Scotland is concerned.

In the preceding remarks it may very well seem to you that I have refrained too much from indicating my own opinion in detail, not only upon past legislation but also as to what is possible in future. The reason is, first, that I am not a lawyer, nor a law-maker; and no opinion of mine as such would be entitled to much authority or respect. But further, it happens that in 1869, when the now defunct Social Science Association met in Bristol, I was led, at the request of the secretaries, to submit some observations on this subject in a paper which extends over only five pages of their *Transactions*, and which, although I will not inflict it upon you at this late hour, I should like to be considered as, practically, a part or section of the present address. The paper, I believe, fell flat. I was not there to defend it; and, in the brief discussion which followed, no one seemed to care to attack it. The

\* An analysis of the bill, clause by clause, will be found in the proceedings of the Parliamentary Bills Committee of the Association. See *British Medical Journal*, August 3rd, p. 273.

† *Edinburgh Medical Journal*, June and July, 1889.

*Glasgow Herald* treated it with some good humoured banter: and the total abstainers and temperance advocates generally fell foul of me on the other side, because I *only* proposed to deal with *drunkenness*, and could by no means fall in with their legislative panaceas against drinking. Nevertheless, it has greatly pleased me to observe that almost every one of the suggestions I then made has been set forth again with new evidence and new authority in the admirable Parliamentary Report of 1872, to which I have so often referred; and, as I am still convinced that a good deal might be or may be done in that direction, I will ask those who have done me the honour of listening to me now to refer to that paper as containing what I believe to be a fairly consistent, and, in the end, a practicable scheme for dealing with the whole matter.

#### APPENDIX.

##### WHAT LEGISLATIVE MEASURES MIGHT BE PROPOSED TO DEAL WITH CASES OF UNCONTROLLABLE DRUNKENNESS?\*

The following suggestions are the result of a professional experience which has led to the frequent and careful consideration (with a view to remedy) of the deplorable evils arising from drunkenness, especially in large towns.

To forbid altogether, or at least over as large an area as possible, the giving or using of intoxicating drinks is the usual remedy of the total abstainer. The difficulties hitherto observed as being in the way of legislation founded on this principle, have arisen from the fact that a large majority of men, although fully alive to the evils of intoxication, are not in principle or in practice total abstainers; and at least until this state of opinion and practice is reversed, so that the large majority becomes the small minority, it may be

regarded as certain that the opinion of society will always weigh heavily in the scale against a law enforcing total abstinence against any large body of the people. Even if a law operating in this direction should be passed, it cannot be expected to work smoothly in practice when thus heavily weighted. The force of opinion, which in this country is greater than law, will assuredly, sooner or later, defeat in detail enactments opposed to the convictions, or even the prejudices, of a very large majority.

But it would be quite otherwise with a law or laws, however stringent, the principle of which was to forbid altogether the giving or using of intoxicating drinks *so as to produce drunkenness*. In legislation founded on this principle there is no risk whatever of offending the convictions of honest men and good citizens who may not happen to be abstainers. The only risk (and it is one not to be overlooked) is in carrying legislation over the line of effective action in detail; in other words, trying to do that which, simply because it is impracticable, is inexpedient.

I. Suppose then, as a first step, we were to enact a law directed—not against the selling of intoxicating liquors under such and such circumstances of time or place (as has been the general rule in restrictive legislation)—but against the selling or procuring the sale of intoxicating liquors to any man or set of men so as to promote or produce intoxication; or, more specifically, so as to bring intoxicated persons under the notice of the police. Is there any honest man or good citizen whose convictions would be offended by the principle of such a law?

It might indeed be objected that such a law would be very liable to evasion; that drunkenness is not a very clearly definable state; that a small quantity of drink will sometimes take an unexpected effect, while a much larger quantity may produce no visible effect at all, &c.; all of which must be freely admitted as difficulties in the way of pushing legislation in this direction to extremities. Well,

\* This title was furnished by the secretaries of the Health Section to me as the proposed subject of a discussion, preceded by one or more papers. See "Transactions of the National Association for the Promotion of Social Science." 1869, p. 421.



then, let us concede that legislation must not be made too stringent (at least for isolated offences) in this direction; that ample opportunities must be given to an accused person to prove that he did not intend to break or to evade the law; still, making all these admissions, we may hold that it would be a point gained to make the publican legally responsible for the production of the drunkard, and subject him to a heavy fine, or in aggravated cases, to imprisonment, in the event of his knowingly violating the law.

I do not anticipate any serious objection to the abstract justice of the principle implied in mulcting heavily the profits of a business so adverse to social order as to exist by habitually making men drunk for the purpose of gain; which is no exaggerated description of an ill-conducted public-house. But it will be asserted that, even in well-conducted houses, men will occasionally get drunk, or will drink to the extreme limit of what may be termed by courtesy relative sobriety, and that it is extremely difficult for a man who professes to sell liquor to the public at all to refuse it to such persons. Granted: and for this very reason it appears more than ever important to affirm the legal principle that making men drunk is an offence against society; and that the publican is, of all men, under the strongest and severest of obligations to give his aid in restraining that offence.

But if it be still maintained that legislation founded on this principal will be necessarily too exacting as regards the publican, I reply that this plea is destructive of the only ground on which it can be right for society to tolerate public-houses at all — the ground, namely (which I am far from disputing), that a public-house can be respectably conducted, and that in our social arrangements we should encourage respectable establishments while discouraging the opposite class. It may even be affirmed that the publicans themselves have been among the warmest advocates of arrangements by which disreputable houses may be discouraged; and with good reason.

The honest and well-meaning publican (giving him all the credit he can possibly claim for personal character and purity of motive) must know far better than anyone else that he is engaged in a business which in careless or unworthy hands may, and does, become one of the worst of social nuisances. It is only by resolutely and systematically declining all business of an equivocal kind that he can keep his own position unquestioned; and such a law as I have indicated would furnish him at once with the strongest inducement so to conduct his business, and the most thorough support from the law in doing so. For it would be the express object of this law to put an end to that base competition downwards which the licensing system attacks so capriciously and ineffectually through the occasional suppression of the inferior houses. The object of this law would be to attack these houses directly, by the systematic destruction of the sources of their profits.

The first principle, then, in dealing with drunkenness on the great scale, must be to aim deliberately at the suppression of that part of the traffic in intoxicating liquors which consists in the encouragement of drunkenness. In other words, the law must deliberately condemn, and must do its very best to put down in detail, all public-houses which are so conducted as to lure poor wretches to their destruction by systematically promoting excess under the name of "refreshment." Not until this is done, it is believed, will the existence of the public-house, even when controlled by the licensing system, become compatible with good government. As matters stand at present, it is well-known that the lucrative character of the business defies all precautions and all restrictive legislation; and the only appreciable effect of suppressing or regulating public-houses has been to encourage immensely the increase of "shebeen," in which riot and excess are the rule instead of the exception. The proposed legislation would induce what, in respect of its directness and impartiality, might also be called a new



principle; it would strike with equal severity the essentially immoral element in the traffic of the licensed and the unlicensed house; but in so doing would, it is hoped, extinguish the latter, and permit the former to exist only when scrupulously conducted in accordance with social order. And thus only does there seem to be a prospect of uniting the scattered forces of society in an effective crusade against the evils of excess, especially among those deeply degraded classes which the law, in its present condition, utterly fails to reach until drunkenness culminates in positive crime.

II. But if the law is to aim at the suppression of the traffic in drink in so far as it leads to intoxication, we can scarcely escape the logical consequence of this principle: viz., that drunkenness, the promotion of which by the publican is to be made an offence, should also be treated by the law as an offence *per se*.\* Here, however, there are distinctions to be made. The man who is accidentally, and as it were by the force of circumstances, seduced into drunkenness, is often only in a very modified sense responsible for the occurrence, and it would be cruel and wrong to add a legal penalty to the shame and self-reproach which are the sure punishment of a comparatively venial error.

\* I was not aware at the time this was written of what is stated as follows by Blackstone (Book iv., ch. 4, x.): "Drunkenness is also punished by statute 4, Jac. I., c. 5, with the forfeiture of 5s.; or the sitting six hours in the stocks, by which time the statute presumes the offender will have regained his senses, and not be able to do mischief to his neighbours." In Scotland the offence of notorious and excessive drinking was formerly punishment by fine or imprisonment, or by corporal pains, under several statutes of the Scots Parliament—*e.g.*, 1436, c. 144; 1617, c. 20; 1661, c. 19; 1672, c. 22; 1693, c. 40; 1696, c. 31. All of these statutes are now in desuetude; and (according to Hume I., 465) the mere indecency of getting drunk does not now, in the general case, subject the offender to any punishment, though it frequently leads to greater crimes.

The man, again, who deliberately seeks the means of getting drunk, and who insists on getting drunk in spite of previous warnings, is guilty of an offence which ought not to be lightly passed over. Between these extremes there are all gradations of infirmity of purpose, yielding more or less consciously to temptation; and, lastly, there is the terrible case of the poor victim who is literally the slave of drink—*non compos mentis aut corporis*, in so far as this appetite is concerned; whose self-control has long vanished, so that he requires to be protected against himself, rather than to be punished for acts from which he is utterly unable to refrain.

To meet these different cases a variety of methods is required, but the following three principles would, I think, be fitted in the interest of society to deal with most of them, so as to give as much discouragement to deliberate evil-doing, and as much aid to human infirmity in the battle with temptation, as it is possible to afford by any system of law. The details of legislation I cannot, of course, pretend to discuss at present.

*First*—The casual offence might either be passed over altogether, if of the venial kind above indicated, or it might be met by a fine or by a very brief imprisonment, at the discretion of the magistrate.† The effect of such

† On this subject the Committee on Habitual Drunkards, 1872, reported as follows:—"That the fine of 5s. imposed by the 4th and 21st of James I. was a much heavier fine at the time it was enacted than it is now, and it might be expedient to raise it to a sum not exceeding 40s. The fine should be recorded against the individual in a Drunkard's Register, and be made progressive, and to the fine should be added the costs often incurred by the police or the public in conveying the offender to the station. This should apply to cases of common street drunkenness, usually classed as 'drunk and incapable.'"

"That after three convictions within twelve months the magistrates should be empowered to require the offender to find a surety or sureties for sobriety and good conduct for a fixed period, and in default of

slight punishments would often, it is true, be quite inadequate, but they would at least serve to mark and register the offence, and thus, in the event of repeated acts of drunkenness on the part of the same person, would prevent the fact of previous convictions from being overlooked. Any punishment going beyond this for a simple act of drunkenness would probably be inexpedient, if not unjust, inasmuch as it would often fall not so much on the actual offender as on his family and friends.

*Secondly.* — The habitual offence might be met by the sequestration, for a limited time, of the weekly wages, or other emoluments and profits of business, applying these, under trust, to the support of the family, and to the maintenance of the drunkard himself, and so leaving him *pro tempore* free to earn, but not free to spend.

With a view to the utmost simplicity of the legal machinery, and therefore of expense, the trustee might be nominated by the drunkard himself and by the wife or nearest relative, with the consent of the magistrates, and should be authorised to receive the whole of the wages, and administer them in the interest of the family; or, in case of savings over and above what may be necessary for this purpose, to deposit them in the National or other Savings Bank during the period assigned as the duration of the trust. In this way a drunkard, in the receipt of good wages, who, though infirm of purpose, might not be wholly demoralised, and who might be really attached to his family and anxious for their welfare, might be made to save money (as it were in spite of himself), perhaps for the first time in his life, and there is even room for hope that in some cases the actual possession of such savings might lead to new and better desires, and thus to a permanent reform of the bad habit. On the other hand, the failure of this measure, and the dissi-

the same, or in case the surety is forfeited by a fresh offence, then to sentence the offender to a considerable period of detention in an industrial reformatory for inebriates as hereafter recommended."

pation of the accumulations made during the time of compulsory soberness, would of itself become an argument in favour of further proceedings in restraint, just as frequent convictions for casual drunkenness would in due course give rise to the proceedings just detailed.

*Thirdly.* — The inveterate offence might be dealt with in two ways not inconsistent with each other, but offering also an alternative to be employed with due regard to the circumstances of the case; (a) the property and earnings of the drunkard, if any, might be wholly placed for a lengthened period under the charge of a tutor, as in cases of insanity, and a formal allowance might be made to him on condition of his living out of the way of temptation; or otherwise the income might be used for the benefit of the family, as in the preceding class of cases; or (b) the person of the drunkard might be placed under restraint in properly regulated establishments like the "inebriate asylums" of America, under State inspection and control. In either case the proceedings should be assimilated to those in cases of insanity; but the only facts necessary to be proved should be the inveterate and uncontrollable tendency to consume strong liquors to excess, resulting either in the reckless squandering of income required for proper maintenance, or in disordered health, bodily or mental, and obviously impending ruin to the drunkard's estate and the prospects of his family.\*

\* On the subject of the inveterate offence, as above indicated, the Committee of 1872 report as follows:—"That when an offender has been called on to find sureties, and has been unable to do so, or when by a fresh offence he has forfeited them, or when he has been called upon a second time to find sureties, he should be deemed and registered as an "Habitual Drunkard," and as such may be sent to an industrial inebriate reformatory by magistrates' order for a term of not less than three nor more than twelve months, the time to be governed by the frequency of the offence."

"That when acts of violence or other

A great deal has been written as to the connection between such loss of self-control as is here indicated and insanity, or as to the point at which such a condition becomes insanity; but for practical purposes I do not think it necessary to raise this question here, if it be conceded that the condition of helpless and inveterate self-abandonment to habits of intoxication is a condition requiring the interference of the law; and one which, in the interest of society at large, as well as of those depending on the victim of these habits, might be more or less effectually mitigated, if not permanently reformed, by restrictions such as are here indi-

offences are superadded to the drunkenness, the ordinary punishment awarded by law to those offences should be carried out; and if the offender comes under the definition of an habitual drunkard, a committal to a reformatory may form part of the sentence, or it may be left to the discretion of the magistrates to send him at once to an inebriate reformatory."

The necessary precautions against abuse are given in great detail, but need not be quoted here, as the present paper only deals with principles. The following, however, as regards the property of the habitual drunkard, is interesting, as showing the Committee of 1872 strictly in line with the suggestions made above:—

"If proof be deemed sufficient by the court of inquiry, it shall make an order for commitment to an inebriate institution for such term as it shall think proper, not exceeding twelve months, and shall also have power, *with or without such commitment*, to make an order for the appointment of a guardian or trustee of the cited party, person, or estate. The party cited shall have the right to be present, both in person and by counsel, and all the evidence shall be taken on oath. The property of the party shall be liable as in committees of the person and estate of lunatics, Act 25 and 26 Vict., c. 86."

cated. On this point the experience of the medical profession will be found valuable, whatever the views entertained by individuals as to the meaning and scope of the technical terms "insanity" or "dipsomania," which, in my opinion, might without disadvantage be kept out of the discussion.

Although the preceding observations, in their details, are to some extent outside the limits indicated in the programme for discussion at the present meeting, yet the principle of them is strictly in accordance with the scope of that proposed discussion. The author is of opinion that until the fact of overt drunkenness is recognised, *per se*, as amounting to an offence in law, no satisfactory progress can be made either in reforming or in controlling the drunkard. At present, while the crimes and civil disorder that proceed from drunkenness are often severely punished, the simple act of drunkenness, even when paraded in public, is treated as a mere infirmity. The law accordingly gets into an utterly illogical position towards the habitual drunkard. It has passed over without remark innumerable flagrant transgressions and outrages on public decency. But when even one of these outrages is followed by positive crime the law steps in to exact the full penalty, and does not allow the drunkard to plead irresponsibility. And in like manner the publican is at once too leniently and too hardly dealt with; the law allows him to make as many men drunk as he pleases, in the ordinary way of business; but when a certain combination takes place among the magistrates who gave him his license, it is withdrawn, perhaps because he has plied his trade only too well. The object of the preceding paper has been to establish, if possible, a more logical and consistent rule for dealing with the whole subject.



## THE PARIS CONGRESS ON ALCOHOLISM.

THE Rev. Dr. de Colleville, of Brighton, has contributed to the *Temperance Record* (April 10, 24, and May 22), an analysis of Dr. Audige's official report of the International Congress for the Study of Questions relating to Alcoholism, which was held in Paris on the 29th, 30th, and 31st July, 1889.

The first day was devoted to the study of the statistical returns of drink houses in all countries; of the connection existing between the increase of the consumption of alcohol and that of criminality and madness. To find out means of diminishing drink establishments and their dangerous influence. What are the results of the two systems in force in the various countries; the freedom of trade granted under certain restrictions and that of a license to be previously obtained?

Senator LEON SAY described the present position of the drink retail houses in France, and concluded his speech by declaring that all the Congress had to do was to find out the solution of the two following questions:—1. What are the best means of watching over the quality of alcohols? 2. What are the suitable means of practically limiting the distilled quantities of alcohol?

A long discussion took place, which was continued on the following day, when these resolutions were adopted:—

"The increase of alcoholic consumption is one of the main causes of criminality, insanity, and suicide."

"The reduction of the number of drink-retailing houses, being one of the means capable of diminishing the consumption of alcohol, the Congress expresses their wish that Governments do that which is necessary to produce such a reduction."

The second question before the Congress was—

(a) "On medico-legal considerations upon the minor and greater criminal offences perpetrated under the alcoholic influence."

(b) "On the legal measures capable

of preventing evils having alcoholism for their cause, such as murders, setting fire to buildings or stores, suicides, &c."

Dr. MOTET, appointed reporter on the portion (a) of the second question, gave a summary account of the report he had been requested to write out. The French law, said he, is mute about excuses to be derived from inebriety. The law has, at times, been more or less rigorously applied according to circumstances; but no fixed jurisprudence makes up for this deficiency. In civil suit cases it has, once upon a time, been decided that agreements contracted by persons under liquor influence were not obligatory. Inebriety was then regarded—but exceptionally—as a valuable motive, permitting courts of justice to pronounce annulment sentences. In order to cause this unhappy omission to disappear from our own French Law Code, it must not be forgotten that, in France, several types of alcoholised persons are to be met with.

1. The plain inebriety type, accidental or intentional, and even, at times, the result of a wilful premeditation. To this type belong habitual drunkards, in whom are not easily detected the characteristic disorders of permanent inebriety, and who, not the less for all that, are under the toxic influence of alcohol.

2. The pathological inebriety type, comprehending all persons suffering from all subacute, acute, or chronic disorders of the mind, which can result from an alcoholic intoxication. To this type also belong the alienated, imbecile, and epileptical patients, who, through the baneful effects of one alcoholic indulgence, may be, or have been, led to commit offences of the most heinous kind, on account of dormant impulses for evil, the which impulses could never have manifested their existence had not it been for this one fatal liquor indulgence.

Inebriety should be punished as well as the delinquencies and crimes perpetrated under its influence. Inebriety



should be punished when alcoholic excitement has been sought after to obtain thereby the amount of will necessary to commit delinquencies or crimes. Inebriety should—but with a degree of attenuation to be determined by the judges of each case—be punished when the delinquent or criminal is a person of a weak intellect, or, else, a person whose *penchant* for alcoholic drinks is partially caused by the inferiority of his brain. On the contrary, inebriety should never be admitted as a valuable excuse when persons are sufficiently intelligent to be aware that drink is to them a danger, and this knowledge is more frequent than is generally supposed. Delinquencies or crimes should not be punished when done during the acute or subacute period of a fit of alcoholism; nor should they be punished when persons are suffering from chronic alcoholism, that is, when the brain lesions of a lasting character have made the brain to lose its integrality, and a permanent brain disorder created. Under such circumstances, the sick person should be deprived of his freedom, taken to a hospital, and there be put under the care of able physicians until perfect cure be realised, and permitting to restore that person to his liberty and social duties.

M. DECROIX, promoter of the French Hippophagous Society, and of the anti-tobacco movement, said that it was to be regretted that an alcoholised person be regarded as an irresponsible creature, temporarily colloated in a medical establishment, and finally restored to social life and freedom, a restoration permitting over and over again the perpetration of fresh crimes. There is but one remedy to this nuisance. Alcoholism can never be an excuse. All men, prior to their becoming drunkards, know perfectly well the dangers that will result for them from the absorption of spirituous liquors. It is, then, with their own free consent and will that they alcoholise themselves. I am positive, not because of a vindictive feeling, but because I am wishing to be careful of my fellow-citizen's lives. When I was a veterinary surgeon, often had I to

kill mad dogs, and horses, too, when the latter were diseased with the glanders or the farcy. I killed simply because these animals were dangerous to men and beasts. Therefore, it is after this principle that I should like to see society dealing with alcoholised persons guilty of murder.

M. DU VERGER, professor at the Paris Law School and appointed reporter on the second portion of the Congress second question, gave a summary of his investigation of the legal means to prevent the evils resulting from alcoholism; the which summary mainly amounted to this, that, whereas chronically alcoholised persons do lose their power of electing one or more things when each has some apparent good to recommend it, and that, besides, such persons without showing any premonitory sign of a fit of fury suddenly coming upon them do cause some irreparable misfortune, there is an over-abundant evidence that a preventive judicial law is absolutely needed. Such a law could not exactly be regarded as an innovation, since analogous legislative instruments have formerly been resorted to in foreign countries and in France. 1. The "English Act of July 3rd, 1879, to facilitate the control and cure of habitual drunkards," describes drunkards to be persons who cannot, according to existing legal definitions, be appropriately termed "insane;" but who are not the less at times, and on account of their addiction to intoxicating drinks, persons dangerous to themselves and to others, or else are wholly incapable to rightly manage their own affairs. This Act gives a full authorisation to habitual drunkards to commit themselves into a home for the cure of inebriates (such as the Dalrymple Home), and, by clause the tenth, decides that persons wishing to enter such a house of retirement should not, save under circumstances specified within the said Act, go out from the selected home prior to the time stipulated in their requests for admittance. 2. At mid-way near Milledgeville (lat. 56 deg. 21 min. N., by 84 deg. 13 min. W. from Greenwich), in Georgia, the

United States of North America own a public lunatic asylum, into which can be admitted lunatics, idiots, epileptics, and drunkards struck with dementia. To get admittance as a boarder into this establishment a medical certificate signed by three respectable physicians is necessary. To be received there as a patient a person must, at the end of an *ad hoc* procedure of a legal character, regulated by previous legislative enactments, have been declared a confirmed drunkard, incapable of rightly managing their own concerns, &c. . . . 3. On July 18, 1885, the Massachusetts State established by law the following decisions:—"All persons addicting themselves to dipsomania or habitual inebriety, whether they do so publicly or privately, shall be liable to be collocated into a lunatic asylum, provided beforehand it has been satisfactorily shown, before the magistrate entrusted with the inquest, that the persons to be thus shut up are not men or women of ill-fame, or tainted with any other vice but the vice of drunkenness" (chap. 339). "The legal formalities for admittance and keeping in of lunatics are those adopted for dipsomaniacs, who cannot be restored to freedom save when perfectly cured from their mania, and when their collocation shall no longer be required for the public safety and for the private benefit of the persons under treatment" (cl. 2 and 3). 4. French legislation and other similar legislations grant neither to alcoholised persons nor to society an available shelter against the dangers of alcoholism. The French Code of Civil Law gives not to the Public Prosecutor the right to provoke the disqualification at law (= "interdiction") of habitual inebriates, save when fits of fury have occurred and when persons afflicted with dementia or with imbecility have no consorts nor relatives known. Then when alcoholised people lose command over their own will, but have not at least been seized by one fit of fury, the Public Prosecutor is powerless. A French law of 1838 authorises certain magistrates in particular to collocate

dipsomaniacs, in virtue of their *ex officio* powers—that is, in virtue of their public authority—but, far from abusing these *ex officio* powers, prefects with most constant energy refuse to make any use of them, the uppermost prepossession of the prefects' minds being to keep up an unflinching opposition to all demands of collocation; so that the General Council of the Department they have to govern find no cause for complaints, nor opportunities to refuse the necessary collocation funds. As to the police commissaries, on account of a circular commanding them to collocate none without a physician's certificate, these magistrates collocate, but when a scandal takes place on some public thoroughfare, because their duty solely consists in the preservation of peace and security within their respective jurisdictions, and not in paying attention to the private tranquillity and safety of families and individuals. Moreover, the same law of 1838 decides that, in so far as the keeping in of dipsomaniacs within private or public establishments is concerned, all persons collocated in a lunatic asylum shall cease to be detained therein as soon as the physicians of that same asylum shall, in their own handwriting, declare, on the registering book kept for that purpose, that, such patient or patients being thoroughly cured, departure from the premises may safely be effectuated. Such a declaration, when it is applied to chronically alcoholised persons, is wholly insufficient, for, on account of their frequent relapses, habitual inebriates, their families, and the community, are altogether left without a real protection. Under such circumstances, the Congress could hardly do better than to lend their moral influence to back up the French Temperance Society, which is now zealously petitioning to obtain from Parliament that public prosecutors—through a slight improvement in the text of the Code of Civil Law—be invested with the power of provoking disqualifications at law (interdictions), as oftentimes, on account of some excessive use of alcoholic drinks, as people made

of themselves "habitually dementate persons" properly so-called, the said prosecutors to have power to cause legal disqualifications even when "dementate persons have consorts and relatives." Besides, whenever chronic alcoholism has not yet produced the complete, but only the partial loss of the self-command over the will, public prosecutors should, as in spendthrift and profligacy cases, be allowed to cause appointments of "judiciary councils" to be made (appointments equivalent to half-legal disqualifications). Finally, when whole disqualifications or half ones are granted by the courts, whether on account of evident dementia, or of weakness of the mind resulting from abuses of alcoholic spirits, the same courts should then be empowered to issue orders for collocations into special establishments to be indicated by name in the Book of Records of Judgments. The Congress of Brussels (August, 1880), emitted the wish that alcoholised persons might henceforth be disqualified at law, when so desired by their families, in compliance with a judicial request emanating from the King's procurator, and that such persons be finally collocated into detentional reformatories organised especially to receive them. The fear of prosecutions and of their consequences would most probably act as a powerful deterrent from alcoholism, and if it did not, the detention of drunkards, at any rate, could then be a good safeguard against future possible crimes.

M. FOURNIER DE FLAIX said that, having been once the judiciary counsel of a wealthy and alcoholised young gentleman, he (the counsel) had the satisfaction to find out that well-calculated impediments thrown into the way of foolish expenditure had the power to deliver the culprit from his alcoholic propensities.

Dr. PETITHAN, the promoter of the drunkard collocation movement in Belgium, said that it is especially a preventive collocation that might really be useful, and that a half disqualification at law could not shelter the inebriate and family from utter financial ruin.

M. LUDGWIG, secretary of the Swiss Blue Cross Temperance Society, said that he once was a drunkard, attempted three times to destroy his own life, when, finally, he went into a home for inebriates, out of which he came forth thoroughly cured.

M. CAUDERLIER expressed his fear that numerous drunkards, coming some day or another to perceive that homes for inebriates were, after all, snug places of retirement, within the walls of which all the necessities and even the comforts of life could never be missing, would very soon do their best to be therein collocated; so that these unexpected and multifarious collocations could not but, in the end, prove a too heavy burden for the State. If, in Switzerland, they like such homes, it is because the alcoholised persons or friends defray all expenses.

M. FOURNIER DE FLAIX reminded the Congress that new enactments should only be directed against the pathological group of Dr. Motet, and that collocation should not be detrimental to the natural right of all men to perfect freedom.

Dr. C. R. DRYSDALE stated that in England, where there are several homes for the collocation of inebriates, those establishments have yielded but unimportant results, because, through a fear of committing an illegal attempt against personal freedom, it became necessary that inebriates should voluntarily agree to their detention, and they did not consent to do so, save as an exception. The English law should therefore be modified to allow families to obtain collocation by law. To collocate the drunkard and put him under appropriate medical treatment is all that may be needed.

Dr. PETITHAN said that he does not wish to see homes for inebriates to be houses of comforts and amusements, but rather the contrary. As to payments, when drunkards or their friends cannot pay, the parish which neglects to apply the laws against alcoholism must pay. He ended by declaring his respect for individual freedom.

Dr. BOUCHEREAU, head physician of the St. Ann's Asylum, Paris, would like that penitentiary colonies be



formed in the provinces to relieve the Seine Department from the heavy expenditure incurred by admitting drunkards into its asylums, the admissions of the latter being 44 per cent, of all men and women admitted therein.

Dr. DU GUER, of Canada, stated that in his native land the law authorises collocations of inebriates.

The third day's proceedings of the Congress were presided over by Dr. C. R. Drysdale, of London, who submitted the following resolutions, which were agreed to:—

(a) "On account of the alcoholic dangers which are actually threatening the thrift of individuals, families, and nations, the Congress, acknowledging that there are valuable reasons to establish a legal distinction between accidental inebriety, pathological ebriety, its several varieties, and chronic alcoholism, emits the wish that, for the needed protection of society, judicial and administrative measures of a lasting character be directed against all alcoholised persons, according to the class they belong to."

(b) "That legislative powers give a sanction to the writings of Senators Claude (des Vosges), Théophilus Roussel, and Léon Say."

(c) "That a provision be made for the building of one or several special establishments, to be the property of the State, and in which establishments alcoholised persons shall be ordered to live when, having committed crimes or minor offences, an order emanating from the judicial magistrates sets them free from undergoing a trial before the proper court of justice."

(d) "That the duration of the indoor collocation be fixed by the courts of justice after a previous medico-legal inquest."

(e) "That the liberation itself be adjourned when it becomes evident that the collocated person is liable to a relapse into his or her fatal mania. Chronically alcoholised persons shall henceforth be liable to a collocation into a lunatic asylum."

(f) "That the establishments to be created by the State be houses of medical treatment, and be not houses

of repression; that in them a severe discipline be kept, and work be obligatory for all able-bodied persons."

(g) "That judicial and administrative statistics be prepared in such a manner as to clearly show the results of such measures."

(h) "The Paris Congress of 1889, as did the Brussels Congress of 1880, expresses the wish that chronically alcoholised persons, having partially or wholly lost the government of their own minds, may, on the request of a public prosecutor or other qualified magistrate, be partially or entirely deprived (= interdicted) at law from his or her legal rights, and temporarily collocated in a special establishment selected by the Court."

The subject of wholesome and strengthening drinks for the working classes was then discussed by Dr. Dujardin-Beaumetz, Dr. Nancleroy, M. Candlier, and others.

Dr. de Colleville presented an address from the British Medical Temperance Association, which has already appeared in this journal. He also presented an address from the British Society for the Study of Inebriety.

The following resolutions were then put to the Congress, and adopted:—  
"The Congress, considering that impure brandies and alcohols (to wit, alcohol other than pure ethylic alcohol =  $C^4H^6O^2$ ), and brandies containing other chemical products than this same alcohol, are brandies and alcohols eminently poisonous; considering, besides, that even this ethylic alcohol may be highly dangerous; considering, finally, that it is absolutely necessary to provide the popular classes with wholesome and strengthening drinks, express the following wishes:—

(a) "That the consumption of impure alcohols and brandies be entirely prohibited, and that alcohols and brandies, even the pure ones, be charged with duties capable of notably reducing their consumption.

(b) "That wholesome drinks, such as the usual series of fermented beverages, and with them coffee and tea, be soon relieved from all duties and taxes.



(c) "That all drink-houses be subjected to a most careful and constant inspection by competent authorities.

(d) "That in the chief towns and cities analytical laboratories be created, whose duty it shall be to analyse gratuitously all spirituous drinks, and to ascertain their purity.

(e) "That the Congress admits that there are good reasons to favour, as much as possible, in the neighbourhood of important workshops, timber-yards, dock-yards, and such other places employing a great number of hands, the creation and multiplication of temperance coffee-houses."

The means of detecting impurities and adulterations in spirits were discussed at great length.

Dr. AUDIGE said: "We—Dr. Du-jardin-Beaumetz and I—have experimentally shown that all alcohols are endowed with poisonous properties; and that, if ethylic alcohol is less toxic than trade alcohols, it is simply because the latter contain, with this ethylic alcohol, other substances, such as aldehydes, æthers, and alcohols of a higher degree in the chemical series: propylic, butylic, amylic alcohols, and iso-alcohols (= *ἴσος* = equal = denoting equality, similarity), &c. Those substances, to be met with in quantities noticeable enough in some alcohols, increase thus much the toxic power of the latter. It would, therefore, be of the highest importance for the public hygienic art, that reagents capable of indicating the presence of the said impurities be at disposal and made use of when required. Chemists, and especially so for the last ten years, have most steadily been engaged in chemical experiments. M. Bardy, who undertook to write out for the Congress a paper on this subject, is the qualified person who (through me) is kindly communicating the acquired results up to this very day. According to this *savant*, man is now in possession of proper reagents (or tests) permitting the easy detection of products unduly contained in alcohols. Unfortunately, save in a few cases it is not as yet known exactly to which of the definite bodies belong the substances which chemical reactions have successfully

extracted. The known methods are eighteen in number, namely:—

"A.—Methods yielding coloured reactions:—1. The potash test, cold or hot; 2. The sulphuric acid test (Savalle's diaphanometer); 3. Lang's process; 4. Uffelman's process; 5. The detection of furfural process (acetate of aniline); 6. The detection of aldehydes through the diasosulfanilate of potash, and through fuchsin discoloured with the bisulphite of soda."

"B.—Methods founded on chemical transformations:—1. Marquardt's process; 2. Bertelli's process; 3. Morin's process; 4. Lindet's process; 5. Bardet's process (permanganate of potash); 6. The nitrate of silver process."

"C.—Methods founded on physical properties of impurities:—1. Hager's process; 2. Uffelman's method; 3. Duprè's process; 4. Traube's capillarmeter; 5. Traube's stalagmometer; 6. Röse's method, improved by Stutzer and Reitmayr."

"The above methods, recommended by the learned Mr. Bardy, are fitter for laboratories than fit for constant use. A simple, quick, really practical process, is as yet a discovery probably of a distant future. Notwithstanding, the Röse's method, already adopted by the Alcohol Federal Firm of Switzerland, appears, for the present at least, worthy of a general adoption. It consists in the mixture within a graduated glass pipe of the alcohol to be tested, and of some chloroform, and finally, in the reading out on the scale of graduation of the increase of volume soon produced in the glass. The chloroform being endowed with the power of dissolving all substances unduly present within the alcohol under test, those substances occupy in the glass tube a more or less greater space. Hence the notable increase in bulk. M. Bardy had to analyse over 10,000 samples of alcohols, and through them came to the conclusion that distillers might well furnish to the trade rectified alcohols of great purity if consenting only to sell but the 'middle distillation products,' named abroad 'the core products'—to wit, alcohols obtained neither by the first or last distillation processes, but coming out

from the very mid depth of the alembics. Meanwhile, M. Bardy could, through those same analyses, satisfy himself that the Röse's method gave uniform results which, taken as a whole, are nearly equal to the results of more elaborate methods. The Röse's process allowing an easy detection of all impurities up to the exception of one two-thousandth, the Congress might well emit the wish that this method be adopted to discern alcohols to be proscribed from those to be tolerated as drinks."

The following resolution, moved by Dr. de Vacleroy, and seconded by Dr. Audige, was adopted:—

"The Congress admits that, with the actual resources of science, the detection of alcoholic impurities is an arduous task, which, for its completion, requires the knowledge of laboratory processes reserved to professional chemists only. It also admits that an easy, quick, practical method to dose, in any alcoholic drink, the quantities of substances other than the pure ethylic alcohol is a method as yet undiscovered. Notwithstanding the Congress regards as being a duty to recommend the Röse method, already adopted in Switzerland, and controlled in France by experimentations numerous enough to accept as sufficiently approximative the results obtained."

Dr. DE VAUCLEROY read a paper

about the alcoholic trade amongst wild tribes, and proposed to the Congress to emit the wish "that Governments owning the territories of such tribes enter soon on a mutual agreement allowing them to absolutely prohibit the imports of alcohols and spirituous drinks into the Central States of Africa, and to punish the traffic of impure or adulterated drinks as being real attacks on human life." The resolution was adopted.

Dr. PIPPINGSKIÖLD, representative of the Finlandish Government, read a paper on the legislation regulating the distillation and sale of brandies in Finland, and on the results obtained.

Dr. DE COLLEVILLE, having duly acknowledged the attention paid to both messages by him delivered, moved the two following resolutions, the second one having previously been suggested by Dr. Motet:—(1) "A Permanent International Commission shall be elected, whose duties shall be the same as those of the two preceding Commissions appointed in 1878 at Paris, and at Brussels in 1880, namely, to study questions concerning alcoholism, and to organise future congresses." (2) "That the Organising Committee of the Paris Alcoholism Congress of 1889 shall proceed, and early, to the election of the new forty commissioners." The resolutions were seconded by Dr. Drysdale, and adopted.

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## AIDS TO SANITARY SCIENCE.

By FRANCIS J. ALLAN, M.D.,

*Dipl. Pub. Health Univ. Cambridge, &c.*

### BEVERAGES.

*Alcohol* with  $\text{CO}_2$  is yielded by the fermentation of the glucoses; cane sugar passing into grape sugar before the production of alcohol commences. This ethylic alcohol ( $\text{C}_2\text{H}_6\text{O}$ ) is contained in spirits, wines, and beer, in varying proportions, and is not un-

frequently accompanied by traces of other alcohols (propyl, butyl, and amyl) simultaneously produced; the chief of these is amylic alcohol ( $\text{C}_5\text{H}_{12}\text{O}$ ); it is a constant accompaniment when sugar is used which has been derived from starch. It forms the chief ingredient of "potato-spirit," or "fusel-oil," and is frequently used

to adulterate or to imitate whisky, brandy, and rum.

*Wine* should contain from 6 to 25 per cent. of anhydrous alcohol (over 17 per cent., however, is not produced by fermentation, and must have been added to the wine); a number of ethers, on which depend the "bouquet;" some albuminous substances and extractives; sugar and other carbohydrates are present in most wines, in some to a large amount; also abundant vegetable salts, which render wine of value as an anti-scorbutic. Wines are adulterated with water, distilled spirits, artificial coloring matters, lime salts, tannin, alum, lead, copper, logwood, catechu, cider, perry, &c.

*Beer* should contain from 1 to 10 per cent. of alcohol, from 4 to 15 per cent. of extractive matters (sugar and other carbohydrates), bitter matters, and free acid.

*Adulterations.*—Instead of making beer solely from malt and hops, numerous other substances are often used by brewers, as capsicum, grains of paradise, aloes, colocynth, colchicin, santonin, cocculus indicus, and picROTOXINE, quassia, tobacco, picric acid, and, before being retailed, water, coarse sugar ("foots") "finings" (made from skins of fish), sulphuric acid, alum, ferrous sulphate, salt (the last three to provide "head") are not unfrequently added.

*Spirits* are for the most part (50 to 77 per cent.) flavoured alcohol, various ethers, and, sometimes, aromatics and essential oils. They do not contain the ingredients which give a dietetic value to wine and beer.

Lead poisoning has happened as a result of the drinking of acid wines (especially home-made) which has taken up lead from the vessels in which it has been made.

The intemperate use of alcoholic beverages has a marked effect upon mortality, increasing diseases of the brain, circulatory and digestive

systems. The mortality is greater in those intemperate on spirits than in those on beer.

*Total abstinence.*—The evidence which of late years has been forthcoming from life assurance offices, friendly societies, Arctic explorers, African travellers, military commanders, &c., clearly shows that the practice of total abstinence from intoxicants is accompanied by greatly lessened rates of sickness and mortality.

#### NON-ALCOHOLIC BEVERAGES.

*Tea and coffee* depend for their restorative properties upon alkaloids (thein and caffen) of similar composition. They contain also much cellulose, tannin, and aromatic oils. Coffee is adulterated with chicory, cereal grains, beans, potatoes, and sugar. Microscopical examination will detect most of these. If a mixture of roasted coffee and chicory be thrown on water, the latter sinks at once, while the former floats for a long time. Chicory is itself adulterated with roasted barley, wheat, acorns, mangold-wurzel, sawdust, beans, peas, parsnips. Tea is not now much adulterated.

*Cocoa*, besides containing theobroma (similar to caffen), has nearly half its bulk composed of fat, and from 13 to 18 per cent. of albuminoid substances. It differs from tea and coffee, therefore, in being not only a nerve stimulant, but also a nourishing article of diet. As the quantity of fat is rather large, various methods are adopted with the intention of remedying this. The best of these is one whereby some of the fat is removed. There should be at least 20 per cent. of cocoa butter left (Society Public Analysts). Other less successful methods consist in the addition of cereal grains, starches, sugar, carbonate of potash, &c.—  
*From The Hospital Gazette.*

## AMERICAN DOCTORS AND THE TEMPERANCE REFORM.

THE promulgation by the British Medical Temperance Association of a new medical temperance declaration, embodying the substance of the three which have preceded it at intervals of a considerable number of years, with the announcement that the signatures of over 600 leading physicians of Great Britain have already been appended to it, emphasises anew, by contrast, the fact that, relatively, in this country, doctors, as a class, are doing far less than in Great Britain for the promotion of the temperance reform. The British Medical Temperance Association, which numbers something over 500 members, with Dr. Benjamin Ward Richardson at its head, and with Dr. James Edmunds, Dr. Norman Kerr, and other physicians of national and international reputation, as active co-workers in it, is a powerful agency in helping to educate and guide aright British public opinion concerning abstinence from intoxicating beverages. Sir William Gull, recently deceased, and Sir Henry Thompson, physicians of great eminence, both bore pronounced and emphatic testimony against the beverage use of intoxicants. Even on the Continent, in recent years, such men as Dr. Forel, of Switzerland, and Dr. Binz, of Germany, both of high standing in the medical profession, have spoken strongly on scientific grounds against the common beverage use of intoxicants, the milder as well as the stronger liquors.

In our own country a few able and earnest doctors, in their individual capacity, have made very valuable contributions, by voice and pen, to the temperance reform. They have given us a considerable number of most useful books and pamphlets, but as compared with the whole body of physicians they are few in number. We have no counterpart of the British Medical Temperance Association, as an organised medical temperance agency, nor have the regular medical societies or the medical journals given much prominence to the cause of

temperance. The New York Academy of Medicine has its "Loving Cup," and doctors at their dinners and banquets in many instances are patrons of wine and other liquors. The exceptions to the general rule, such as Dr. N. S. Davis, of Chicago, the father and founder of the numerically great American Medical Association, serve to render more conspicuous the shortcomings of the great body of American physicians in their relations to the temperance reform.

No one has so good an opportunity as the physician to see and realise the evil physical results of alcoholic indulgence, none has so good an opportunity to discourage it. There are noble and honourable exceptions, which we gratefully recognise, but too many doctors seem quite indifferent to the general subject, and bear no effective part in the movement of our time to restrain and abolish injurious social drinking usages, and the iniquitous drink traffic by which they are fostered. In the prescription of remedies they are wont to make free use of intoxicating liquors, in many instances, no doubt, where such prescriptions are wholly unnecessary, and sometimes, in cases of the abnormal alcoholic appetite, from inheritance or otherwise, where they are attended with great peril and most disastrous consequences.

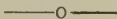
In the sphere of "patent" medicines, for which the regular profession should not, of course, be held generally responsible, but in which many irregular doctors are engaged in making, vending, or commending, there is a vast amount of alcoholic medication of a most dangerous character, rendering the drug store in some cases quite as mischievous as the saloon. The self-prescription of many of these alcoholic remedies, "bitters" and the like, is greatly encouraged by the indiscriminate prescriptions of doctors themselves where non-alcoholic remedies are within easy reach. We are ourselves quite prepared to believe with Dr. Davis,



concerning the medical use of alcohol at all, that "its applicability as a remedy in the treatment of disease is extremely limited; so much so, that it might be wholly dispensed with without any injury to the sick, every intelligent physician being able to supply its place with other remedies of equal, if not greater value, in the limited number of cases in which it is applicable." But however that may be, and we know there is honest and honourable difference of opinion among physicians as to the use or non-use of alcohol in the treatment of disease, all should be able to see that the only truly scientific way to employ alcohol as a drug, is to use it with the care and accuracy

which is habitual in the use of other drugs, by itself as pure alcohol. It is quite certain that it may properly be used medicinally only thus, if at all.

We hope the new Medical Temperance Declaration of the leading doctors of Great Britain may have the effect to encourage their professional brethren on this side of the Atlantic to "go and do likewise," and to join more fully than hitherto in the important pending crusade against intoxicating beverage of all kinds as jeopardising, as scarcely anything else does or can, the health and well-being, physical and spiritual, of the American people.—*National Temperance Advocate* (New York)



## CASE OF SO-CALLED "SPONTANEOUS COMBUSTION."\*

By J. MACKENZIE BOOTH, M.A., M.D., C.M. Aberd.

*Physician to the Aberdeen General Dispensary, and Lecturer on Diseases of the Ear and Larynx in the University of Aberdeen.*

I WAS lately called to a case which vividly recalled the old tales of spontaneous combustion, and more especially an article that I had read on that subject by our late President, Professor Ogston. The term "spontaneous combustion" has been applied to two conditions: first, spontaneous ignitibility, and secondly, increased combustibility; and I need hardly say that it is to the second category that the present case belongs. As Dr. Ogston remarks on these cases, the subjects were all found dead, their bodies, their clothes, and the articles in their neighbourhood, being partially or entirely destroyed by fire; the only remarkable thing about them being that the bodies were burnt and charred out of all proportion to the neighbouring objects, and to an extent which seems incapable of being accounted

for by the heat of the burning clothes and objects in the vicinity.

On the morning of Sunday, February 19th, I was sent for to examine the remains of a man, A. M., aged 65, which were found in a hay-loft off Constitution Street. This man, a pensioner, of notoriously intemperate habits, had been seen at nine o'clock the night before to enter the stable below in an intoxicated condition, and he asked the lad and girl who saw him to shut the stable door after him, which they did. Then they heard him ascend the ladder leading to the loft above, and afterwards saw the skylight of the loft lighted, and later still, the light put out. Between eight and nine next morning the wife of the proprietor of the stable, living near by, happening to look out of the window, observed smoke issuing from a hole in the roof of the loft. She informed her husband of the fact, and he, on entering the stable, was horrified to see, through a hole in the loft

\* Read at a Meeting of the Aberdeen, Banff, and Kincardine Branch, on March 21st, 1890.

floor, the remains of the old soldier perched on the joists above, and leaning against the wall. The police were at once communicated with, and I was sent for to attest the accident. On arriving I ascended to the loft, and found the charred remains of a man reclining against the stone wall, and kept only by one of the joists and the burnt remnant of the flooring under him from falling through into the stable beneath. What struck me especially at first sight was the fact that, notwithstanding the presence of abundant combustible material around, such as hay and wood, the main effects of combustion were limited to the corpse, and only a small piece of the adjacent flooring and the woodwork immediately above the man's head had suffered. Several of the slates had fallen in over the corpse, making a small hole in the roof above it, and a small piece of the flooring had fallen through immediately round him into the stable below, leaving the hole through which he had been first seen. The body was almost a cinder, yet retaining the form of the face and figure so well, that those who had known him in life could readily recognise him. Both hands and the right foot had been burnt off and had fallen through the floor among the ashes into the stables below, and the charred and calcined ends of the radius and ulna, the left humerus, and the right tibia and fibula, were exposed to view. The hair and scalp were burnt off the forehead, exposing the bare and calcined skull. The tissues of the face were represented by a greasy cinder retaining the cast of the features, and the incinerated moustache still gave the wonted military expression to the old soldier. The soft tissues were almost entirely consumed, more especially on the posterior surface of the body, where the clothes were destroyed, and the posterior surfaces of the femora, innominate bones, and ribs exposed to view. This was doubtless in a measure caused by the falling of the slates on the body, and a more perfect cinder would have been found had we arrived earlier on the scene. Part of the trousers on the anterior

aspect of the legs that had escaped the impact of the slates was still represented in cinder.

Regarding the condition of the internal organs, I regretted much having been denied the opportunity of investigating their condition, as wishing to have a photograph taken of the remains prevented me at the time, and on my return from other work later on I found that the whole had been removed. The bearers told me that the whole body had collapsed when they tried to remove it *en masse*. From the comfortably recumbent attitude of the body it was evident that there had been no death struggle, and that, obfuscated by the whisky within and the smoke without, the man had expired without suffering, the body burning away quietly all the time.

So much for the condition of the corpse. The strange fact remains that while round about in close proximity were dry woodwork and hay, loose and in bundles, these had escaped, and the body of the man was thoroughly incinerated. The exceeding stillness of the night (for it was remarked by the policeman on the beat that there was not a breath of wind) would only in part account for the facts.

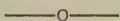
To return to Dr. Ogston's paper. That increased combustibility exists cannot be denied, though at first sight it is not so clear to what it owes its existence. The question has given rise, as has already been seen, to numerous hypotheses, all of which, with one exception, are manifestly untenable, and it is owing to the wildness and illogicality of these hypotheses and deductions surrounding the subject that the whole question has come to be treated as a half-forgotten fable. In the doctrine that increased combustibility in bodies is due to excessive fat, Dupuytren has advanced the only explanation capable of setting the subject at rest, and on a true basis explaining rationally and philosophically the cases of so-called "spontaneous combustion."

When we consider the amount of fat some bodies contain, the subject grows even clearer, and a review of the cases demonstrates that the in-

cineration was always most extensive in the skin and subcutaneous adipose tissue, and other places where fat is abundant, and least marked in organs and regions with less fat. The fatty degeneration of various organs and structures, the intermuscular and subcutaneous adipose tissue, along with the masses deposited in other parts of the body, all present a body of oleaginous matter amply sufficient to account for the combustion, and which, once ignited, would tend rather to burn *in*

*situ* than to flow out, thus explaining the greater destruction of the corpse than of objects in the vicinity.

Regarding the influence of alcoholic indulgence in these cases, it has been conclusively proved that tissues soaked in alcohol do not burn more readily than others not so treated, and that it is only as a stupefying agent and in its tending to the deposition of fat in the body that alcohol aids in increasing its combustibility.



## ALCOHOL AND THE BUDGET.

NOTWITHSTANDING the many congratulations that have been indulged in of recent years on the presumed greater temperance of the people, the current Budget shows that these rejoicings have been somewhat premature. The Chancellor of the Exchequer's announcement that he had received £1,800,000 more for duties and licenses on alcoholic beverages has struck many enthusiasts with dismay. The most remarkable increase has been from rum, the reason for which particular increase has been alleged to have been the greater consumption of that spirit as a prophylactic and remedy for the influenza, which some months ago swept in an epidemic over the land. We cannot accept this explanation, as other spirits were also largely resorted to for these purposes. Fashion is more likely to have determined the matter, this old favourite drink having come again into more general favour prior to the prevalence of the epidemic. We cannot confess to surprise at an all-round increased consumption of intoxicants. Waves of temperance, characterised by sensational and emotional appeals, to which we have recently been treated, have their periods of ebb and flow. We shall not be surprised if this alcoholic indulgence continues to increase for the next few years. The only basis of a permanent temperance re-

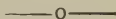
formation lies, not in appeals to the feelings, but in the teaching of the composition, character, and effects of intoxicant beverages on body and on brain. Such knowledge should be widely spread.—*British Medical Journal*.

No one will think the worse of Mr. Goschen for not foreseeing that the drinkers of alcohol would give him such a large proportion of the splendid surplus of which he found himself possessed at the end of the financial year. Charity thinketh no evil, and for Mr. Goschen deliberately a year ago to have anticipated that his fellow-countrymen, who had been making great advances in temperance for ten or twelve years, would use their increased incomes in the increased consumption of spirits, especially rum, beer, and wine, would have been a decided breach of charity. But it is even so. We are particularly humbled. It is our business to defend alcohol from the intemperate attacks of teetotalers, knowing well that it is often most useful, if not indispensable. But it is also our business constantly to point out that an enormous amount of disease is produced by it leading to misery, pauperism, and death. We almost hoped that it was a matter of common acceptance and intelligence that all casual drinking, drinking for its own sake, and except as part of a

meal, was thoroughly bad. But we have no escape now from the conclusion that the higher wages of a period of prosperity have been used, not in the consumption of articles of use to the whole of a man's family, but in the increase of his beer, his rum and other spirits. There is a selfishness about this use of high wages, as well as a pathological significance, which, as Mr. Goschen says, we must deplore. We cannot doubt that if this aspect of the use of higher wages could once be realised by the British workman he would be ashamed of it. The nation owes a debt of gratitude to Mr. Goschen for the exposure of the truth in this matter, and for his attempt to direct

public attention to the deep alcoholic tendencies of the people and the means for their restraint.—*Lancet*.

Much speculation has arisen as to the reason why the sale of spirit under the name of rum has increased so much more than other spirits. The influenza epidemic is credited with causing a portion of the increase; and, no doubt, rightly so; but the influenza alone is not sufficient to explain the rush to rum. The chief cause of the increase is, we believe, due to the extension among working men of commencing the labours of the day with a dram of rum in milk, in which blend an enormous business is done at public-houses patronised by working-men.—*Hospital Gazette*.



## THE TREATMENT OF ALCOHOLISM.

THE determination of the best methods of dealing with cases of acute and chronic alcoholism has always formed an attractive subject for research. The latest contribution is in the form of a medico-social study upon alcoholism by Dr. E. Monin, published by Octave Doin. Following the usual curious foreign custom, a specimen chapter from the book appears in the *Revue de Thérapeutique*. This enables us to gather Dr. E. Monin's views of treatment of both acute and chronic alcoholism. For the former he recommends rest in bed and emetics; but, recognising the occasional difficulty of provoking vomiting, he advocates also the employment of tea, coffee, and acetate of ammonium. He believes that enemata of coffee, combined with friction and massage, have frequently averted conditions of collapse which might otherwise have proved fatal. In severe cases he is in accordance with English practice in the employment of the stomach pump or of Faucher's tube. Capsicum and cherry laurel are often of use in cases of coma. For the sleeplessness, cramps, and nightmare of acute "absinthism," large doses of chloral and of opium are

recommended. The treatment of delirium tremens with saline purgatives, warm baths, and laudanum, together with milk and beef-tea, scarcely appears to recognise the importance of nutritive measures. During the convalescent stage the employment, of caffeine, quassia, and strychnine, present nothing contrary to custom. The difficulty of dealing with chronic alcoholism is to be met, according to Dr. Monin, by nutrition, milk diet, and open air, with quinine and tonics. While speaking highly of calumba and quassia, of asafoetida and bromides of camphor and ether, and of phosphide of zinc, more stress is laid upon the value of strychnine in heroic doses. Numerous methods of employing nuxvomica are given in detail; and, in conclusion, some of the troublesome accompaniments of alcoholism come under review. Presuming a possible analogy between acute alcoholic cirrhosis and the toxic action of phosphorus, Dr. E. Monin successfully treated one case with full doses of turpentine by the mouth, and he suggests that this treatment might be found of general service in similar cases.—*Lancet*.



## HOMES FOR INEBRIATES ASSOCIATION.

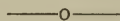
IN the report for 1889-90, we read that the experience of another year has proved strongly confirmatory of the presence of a diseased condition in many inebriates, and of the fair prospect of a cure of the disease of inebriety, especially if treated at an early stage of the malady. During the six-and-a-half years that the Dalrymple Home has been open there have been 201 admissions. Of 183 who have left, the after history of 151 is known. Seven are dead, one is in an asylum, eighty-eight are doing well, five have improved, and fifty-seven are not improved. Thus considerably more than one half have done well, though the average duration of the inebriate excess has been eight-and-a-half years. As marking the diseased and disordered state of many of the patients prior to alcoholic or other inebriate excess, it is worthy of note that of the 183 cases there has been a history of inebriate or of insane heredity in no fewer than eighty-eight, or nearly one-half of the whole number. The committee have now had a record of the results of systematic treatment of inebriety so satisfactory as to justify them in the expression of the hope that efficient legislation may ere long be enacted for the scientific treatment for purposes of cure, of inebriates of every rank and position in life, and for the compulsory reception of such victims of this disease as are too broken down in will power to apply of their own accord for admission and detention. The committee are glad to observe a remarkable advance in the opinion of Boards of Guardians as to the urgent need for the scientific care of pauper inebriates, an advance in great measure due to the efforts of the British Medical Association and the Society for the Study of Inebriety. The committee regret that there is as yet no provision under the Acts for destitute inebriates; but they cannot assume the responsibility involved in such an undertaking, unless a sum of at least £20,000 is placed at their disposal (towards which a member of the com-

mittee has offered £500, on condition that the remainder of the whole amount is subscribed), in addition to ample annual subscriptions.

With regard to the Dalrymple Home at Rickmansworth, the medical superintendent (Dr. R. W. Branthwaite) says: With the exception of a few cases of sickness due to the prevailing epidemic of influenza, and the ever-present debility, the result of previous excess, the health of the inmates and house generally has been uniformly good throughout the year. This is no doubt due in a great measure to our excellent sanitary arrangements. One patient was admitted suffering from mental delusions, which completely disappeared in three or four days after removal of the cause. A similar case occurred about two years ago, following a severe attack of alcoholic epileptiform convulsion, in a patient who was subject to them during heavy drinking. In both these cases there was previous history of a similar condition. There has been no case of delirium tremens, and it is worthy of note that since the opening of the Home only two cases have occurred. In one certainly, probably both, of these, warnings of the subsequent attack were observed some days before admission. No ill effects have been noted from the immediate withdrawal of alcoholic stimulants, which is still practised in all cases; and our table of upwards of 200 cases supplies us now with fair data upon which to base our conviction, that this mode of treatment (with due care) is perfectly harmless. A subsequent course of suitable medicinal remedies, regular diet, exercise, and, if possible, employment, soon places the patient in a fair way for physical health and mental improvement. The admissions during the year have numbered thirty-two. Twelve entered under the Act, and twenty as private patients. Of those under the Act, six entered for twelve months, three for six, and three for three months; of private patients, two entered for twelve, nine for six,

and nine for three months. Two had retired from the army, one clerk in holy orders, three solicitors, one barrister, two musical professors, one dentist, one engraver, one retired mer-

chant service officer, one architect, one commission agent, one clerk, seven merchants, one shipbroker, one tailor, and eight described as gentlemen of no occupation.



## MEDICAL VIEW OF DRUNKENNESS.

A VERY interesting and important question was discussed the other evening at a meeting of the Police Surgeons' Association, held at St. Thomas's Hospital, Mr. McIlwraith having called their attention to the difficulty of defining the condition indicated by the term "drunkenness," and the uncertainty as to a man's responsibility for actions committed while drunk. Strangely enough, the question was represented, even by an intelligent public writer, as a semi-comic one. It is far from comic, as no one knows better than a police surgeon. No one sees so much as he of the infinite complications which beset cases in which injury, exhaustion and disease, are mixed up with alcoholic poisoning in its various grades, so as sometimes to baffle all ordinary powers of diagnosis. But apart from these more difficult cases (which, however, are of very common occurrence) the everyday question for the police, "When is a man to be called drunk?" is one which becomes the more puzzling the more it is studied, and it is one which recent police legislation has made incumbent on medical men to answer, since now everyone charged at a metropolitan police station with being "drunk and disorderly" has a right to summon a medical man to pronounce on his sobriety; and of course in all cases where there is any reason to believe that a person is seriously ill, whether he be thought to be drunk or no, medical aid is at once summoned to decide the question. There seems to be no particular reason for making the mere question of sobriety a medical one, since no definition of drunkenness appears to

have been attempted by writers on medical jurisprudence; but, as it has been so ordered by the authorities, it behoves the surgeons called in by the police to have as clear ideas on the subject as circumstances permit. To this end, as it seems to us, the recent discussion will very materially contribute, and we would call especial attention to the following very practical and useful observations of one of the divisional surgeons.

Dr. Forsyth said "the term 'drunk' was applied to any case in which alcohol was supposed to be a factor, and he thought it was necessary that they should differentiate between the various states. He objected to the indefinite expression being so easily used and so easily accepted, and urged that drunkenness should be treated under at least three aspects—excitement, loss of control, and coma, and that in all cases where persons were charged with being drunk the magistrate should require a qualifying definition to be given, and should also demand the reasons of those making the charge for attributing the condition of the prisoner to alcohol. He would also insist upon a man who was unconscious from drink being in all cases treated as being in as great danger as an apoplectic patient, for one was in as great danger as the other. If this were done, the heading 'Drunk or Dying' would disappear from the newspaper reports."

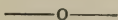
It is obviously in some such rational discrimination of the various conditions produced by alcohol, as is here indicated, that safety is to be found for the liberties and lives of persons who are, or are suspected of being,

"drunk;" and we congratulate the police surgeons on having taking up so interesting and so important a subject, and of having treated it in a way so likely to result in benefit to the public. Other useful remarks on diagnosis were made during the discussion, such as the following by Mr. Phillips:—

Dealing with the tests for drunkenness, he pointed out that "when the brain was poisoned by alcohol the pupils of both eyes were contracted alike, whereas in apoplexy it was

noted in one or the other according as the effusion of blood affected one portion or another of the brain."

The Association is one capable of rendering much service to medical science, for many interesting points are copiously illustrated in police practice, which but rarely come before the general practitioner, and we are therefore glad to see that they are likely to be treated wisely and usefully by the newly formed Society.—*British Medical Journal*.



## LEGISLATION FOR PAUPER INEBRIATES.

THE *British Medical Journal* of May 3 reported a meeting of the Inebriates Legislation Committee of the British Medical Association, held on March 18th, when the chairman (Dr. NORMAN KERR) in presenting an analysis of replies to a circular letter to Boards of Guardians, stated that at the annual meeting of the Association, held at Cambridge in 1880, a resolution was passed approving of the detention, for curative purposes, of inebriates who are frequently entering and leaving the workhouse, the guardians having no power to detain them—a practice involving great loss to the ratepayers, while actually enabling the paupers themselves to renew and continue their alcoholic indulgence. With a view to influence Parliament to enact the necessary legislation, a circular was issued to boards of guardians in 1881, asking their opinion on such a proposal, which was followed by a second circular in 1882. Last year a third circular was sent out by the Committee, with the authorisation of the Council. In this last circular attention was called to the difficulty often experienced in dealing with habitual or periodical drunken inmates, many of whom, well called "ins and outs," entered in order to enable them to recover from the effects of an inebriate outbreak, and claimed their discharge as soon as they felt strong

enough to recommence their excesses. It was pointed out that a considerable proportion of these "repeaters" are the victims of a diseased condition which has set up an overmastering impulse or crave for intoxication which they are powerless to resist, and that the only prospect of curing this disease is by seclusion from intoxicating drinks, under proper medical treatment, so that there may be freedom from temptation, with the adoption of every means helpful in the restoration of the weakened will power. The Committee also expressed their belief (a belief shared with the Council of the Society for the study of Inebriety) that it would be true economy to deal with such paupers under the provisions of the Inebriates Acts, which Acts they hoped would be increased in efficiency by legislation for the compulsory reception, in properly conducted homes, of inebriates too broken down in will power to apply voluntarily for admission and detention. The Committee asked the opinion of boards of guardians as to whether such boards should be invested with the power (if they should decide to exercise it) of paying for the detention and treatment of pauper inebriates, on like conditions to those now operative with regard to lunatics and paupers having special diseases, namely, either by detention in the

workhouse or in some institution for the treatment of inebriety.

To this third circular the committee were gratified to receive 229 replies; of these, fourteen boards were unfavourable to the proposed measure, eighty-three expressed no opinion, and 131 were favourable. A large proportion of the neutral and unfavourable replies stated that there had been no experience of drunken "ins and outs" in their parishes.

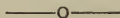
One of the boards replying (Barrow-in-Furness) in the affirmative, thinks that any such relief should be a loan recoverable from paupers' future earnings. Another (Woolwich) is of opinion that all the expenses should be "thrown entirely on the brewers, gin distillers, and others deriving profit from the sale of spirituous liquors." A number of the replies are very decided in their approval of the amendment of the Inebriates Acts so as to provide for the compulsory reception and detention of non-pauper as well as pauper cases when the inebriates are too broken down to apply of their own accord. The Croydon Board hold that such a power would be "an advantage to the person as well as to the ratepayer." Several boards think, with St. Pancras, that the costs should fall on the Common Poor Fund. The

City of London Board think that the guardians should pay an amount to be fixed by Government, or in pursuance of an order of the Local Government Board.

It is specially noteworthy that the affirmative replies (131) outnumber by 33 the total number (98) of the opposed (15) and the neutral (83). The marked advance of the proposed legislation in the estimation of guardians is shown by the large increase in the number of the favourable replies—131 as against 14 in 1881, and 27 in 1882, and by the total number of replies, 229 in 1889 as against 36 in 1881, and 49 in 1882. In many cases the decision was arrived at after prolonged and exhaustive discussion of the proposition, the public press giving full reports.

	Replies	Favour-	Unfavour-	No	Total.
	in	able.	able.	opinion.	
1881 ...	14	...	2	...	20 = 36
1882 ...	27	...	8	...	14 = 49
1889 ...	131	...	15	...	83 = 229

Moved by Dr. BRIDGWATER, seconded by Surgeon-Major POOLE, and resolved:—"That it be recommended that the report of the Committee on Pauper Inebriates be circulated amongst the Boards of Guardians of the United Kingdom."



## REDUCED CONSUMPTION OF ALCOHOL IN HOSPITALS.

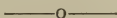
WE have heard a good deal of the reduced consumption of alcohol in workhouses, where the pressure of abstemious or austere guardians may be supposed to operate. A committee of the British Medical Temperance Association on the Consumption of Alcohol in Hospitals now enables us to see how far a similar process is going on in hospitals. The medical influence is more largely represented in these institutions, and is more independent. It becomes a very important and interesting question for the profession to know whether alcohol is

being more or less used. Everything in hospitals gives significance to this matter. The patients for the most part are not teetotalers, to say the least of it; they are not over well-fed; the diseases which entitle them to admission as in-patients are more or less grave and exhausting; the hospital physicians and surgeons are the great teachers of our medical schools, and their practice gives the clue to the general practice of the country. We regard the inquiry, therefore, with much interest, and owe a debt of gratitude to the committee for under-



taking it. They compare the consumption of alcohol in hospitals a quarter of a century since and now. For the practice in the earlier period—viz., 1863—they rely chiefly on a valuable book on “Vital and Economic Statistics of Hospitals and Infirmaries of England and Wales,” by Dr. Fleetwood Buckle, R.N. For the consumption of alcohol in the year 1888 they are indebted to the secretaries of the various hospitals, to whom they cheerfully acknowledge their obligation. They still lament want of uniformity and regularity in keeping the wine accounts, but have no doubt of two facts standing boldly out—viz., that in the great majority of cases there is, as between the two periods, an increase of 300 per cent. in the use of milk, and a decrease of 47 per cent. in the use of alcohol. In 1888 the cost of alcohol per bed per annum showed a decrease varying from 30 to 83 per cent. on the cost per bed in 1863. Of seventy-three hospitals so compared only eight showed an increase, and only two a marked increase. In King’s College Hospital (the field of Dr. Tod’s remarkable practice) the decrease has been from £7 14s. 1d. per bed to £1 8s. 8d.; in St. Mary’s from

£5 19s. 2d. to £2 os. 6d. The Committee report that only one hospital in London—St. George’s—maintains its quantity of alcohol, and they could not resist the temptation to say that the mortality from typhoid in this hospital in 1872 was just double that of Dr. Gairdner’s in Glasgow under a milk treatment. The practice of the Fever Hospital of London is very important. The alcohol per bed in 1863 was £3 5s., as against 15s. 9d. in 1888; whereas the expenditure on milk was more than double. Of course, these comparisons are and can only be rough and coarse. But they are not without significance. Nothing is worse than the wholesale and routine prescription of alcohol in disease, though nothing is clearer to men of open minds than its use in well-selected cases, and in definite and carefully-administered quantities. On the surgical side of hospitals the anti-septic system is to be much credited with the reduction in the necessity for stimulants. The quicker healing of wounds and the practical abolition of surgical pyrexia and suppuration have made a difference which young men must have no difficulty in recognising. —*Lancet*.



## WHY SOME MEDICAL MEN RECOMMEND ALCOHOLIC DRINKS.

By DR. SOUTTER, M.R.C.S. Eng., A.K.C. Lon.

IT is a deplorable fact that many people, and among them some Christian workers, decline to take any part in temperance work because their medical advisers have recommended them to take wine or some other alcoholic drink. Of course, to be consistent, they feel that they could not advise others to abstain while they themselves were taking any form of drink. This is their direct condemnation, for they should partake of nothing that injures their brethren that is not essential for themselves; and few would dare to say that any form of alcoholic drink is essential for their health.

But it is a regrettable fact that many medical men recommend their patients to take wine also, and spirits, and there are doubtless many reasons why. For many years alcoholic drinks have been considered in this country essential to life, and the poorest have rather purchased ale than a loaf of bread. And this general, although mistaken idea has not died out—even amongst medical men, who ought to know better. A very large number of medical men are fond of drink. They love it not wisely, but too well, and it is absurd to suppose that they would forbid their patients to take what they themselves freely indulge in. The drunken doctor

in past days was very common; he is not quite so common now, but he is often enough to be met with, and there is no corporate body able to take him in hand and teach him better manners, or to protect the public from his advice in the matter of drinking. A bishop or presbytery may unfrock a minister for intoxication, but the corporate bodies who license medical men take no notice of such a crime.

There are some medical men who conscientiously recommend intoxicants, however, either for their stimulation or for their tonicity. The terrible pity is that they might just as well recommend something else quite as well able to answer their purpose, without the risk of alcoholicity, but that they will not do so. There are fifty good stimulants in the pharmacopœia, and there are 150 good tonics; and yet when stimulation is wanted wine or brandy is advised. When a tonic is wanted bitter ale is ordered! It is an easy routine for the adviser, and hundreds of doctors have got into a rut from which they never can be shifted, however good the reason, and however bad the result to the patient.

One thing must be said, that when the doctor orders drink he meets with a most cordial response in the patient. Ninety-nine out of a hundred are ready and anxious to get such advice, and some go to the doctor expressly to get his sanction for their own consciously forbidden indulgence. The popular doctor will always be the man who knows what his patient likes and prescribes accordingly.

The science of physiology has distinctly condemned the common use of all sorts of alcoholic beverages. Pharmacy has placed alcohol in the list of poisons, with chloroform and ether. Pathology has traced most of the diseased states of the digestive organs to the constant small or occasionally large use of alcoholic beverages.

Forensic medicine has indicated the drink habit as the main filler of our gaols and lunatic asylums. And yet many doctors still indiscriminately recommend the common alcoholic beverages of the day. They are certainly unwise, and they as certainly do an immense amount of mischief. If they stand in the top ranks of the profession, they are the more to blame.

It may be said that all this applies only to the abuse and not to the use of the drink. But this is not so. It applies to the habitual use as well as to the abuse, and no man can safely say, even for himself, where the use ends and the abuse begins. It is all abuse in my opinion, unless purely medicinal. No man would be stupid enough to perpetually take arsenic, although for an occasion prescribed by the doctor. When the occasion passes away the poison is discontinued. But, alas! how many fools there are who continue to take the alcohol prescribed by the doctor although the occasion of its recommendation has long since disappeared.

My readers may ask me this simple question, If my doctor recommends me to take ale, or wine, or spirits, for my present illness, should I do so or not? No, decline to have anything to do with them, and risk it. If it is a stimulant you want, ask the doctor for another sort; if it is a tonic, ask for another, or for hops without the fermentation. Drink is cursing the world, and every Christian man and woman must set their faces against it as a flint, and at all hazards to themselves. The drink shop is no longer compatible with the Church; they are arrayed the one against the other, and every man must take his side. In the days of our ignorance we thought differently, but nowadays there is no excuse for indulgence in any form of alcoholic drink.—*Echoes of the Month.*

# "CHRONIC ALCOHOLISM."\*

THIS small but important work by Dr. Payne is an address introductory to a discussion on the morbid anatomy and pathology of Chronic Alcoholism, held at the Pathological Society of London, on December 4th, 1888, and is reprinted from the *Transactions* of the Society of 1889. In the book there is one sentence which, coming as it does from so good a pathologist as this author, is worth any price. I set the sentence out, therefore, alone in all its powerful simplicity:—

"On the whole, I submit that the general results of the facts adduced is in favour of what I may call *the toxic theory of the action of alcohol on tissues*" (p. 30).

This statement is the practical outcome of the argument that the analogy of the other forms of neuritis produced by various toxic substances, such as lead, arsenic, copper, or by specific diseases, in which the histological characters are the same as those of alcoholic neuritis, though the vascular disturbances are wanting, supplies a strong argument in favour of the toxic action of alcohol. These agents also exert the twofold action which the author has attributed to alcohol, namely, of producing parenchymatous degeneration and interstitial inflammation.

The observations given above are in a reply made by Dr. Payne to the various criticisms which had been passed on his paper by the Fellows of the Pathological Society. It is necessary for the reader to turn to the paper itself in order to get a full insight into the argument which led up to the reply. In this paper there will be found, in order, an account of the effects of alcohol as seen (a) *in the liver*; (b) *in cirrhosis of the liver*; (c) *on the nervous system*; (d) *on the spinal cord*; (e) *on the peripheral nerves*; (f) *on other organs besides the liver and the nervous system*,

namely, the *kidneys*, the *organs of generation*, the *lungs*, and the *skin*. It is the fact that on every one of these parts the author finds a morbid anatomy from alcohol. Speaking of general paralysis, he discovers for that condition three factors: alcohol, functional strain, and, in many cases, congenital incapacity to bear strain, *i.e.*, "a disproportion between functional activity and power of resistance, especially in the higher cortical centres and the tracts connected with them."

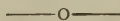
He emphasises this suggestion because it appears to confirm the conclusion arrived at on other grounds, "that the effects of alcohol on the nervous system, and even on the brain, are independent of its functional effect on the nerve cells, but are those of a *tissue poison* acting directly on the protoplasm of various parts."

One peculiar feature is present on every page of this treatise. Not a single name is mentioned of any one of the many writers who have discussed the action of alcohol on the body from the practical side of temperance. Why is this strange omission? Other authors are named. For what reasons are those most interested, those who through storm of unmerited attacks have borne the brunt of speaking first the truth, the whole truth, and nothing but the truth, altogether omitted? The reasons for the omission are few in number. Is it that these men are all wrong? Impossible, if Dr. Payne be right, for they have said precisely what he says. Is it that Dr. Payne is afraid to recognise a great social and moral as well as scientific movement, which must in course of time become so powerful as to cover with the lasting credit and gratitude of a reformed world all who have led the way to the grand reformation? This can hardly be the case; for if current belief be true, Dr. Payne is one of the very limited few who would like to live after death, even in this world; live as one who has left the world a little better than he found it. Is it want of knowledge? No; for he is

\* By Joseph Frank Payne, M.D., F.R.C.P.

one of the best read men in medicine. Is it that the course pursued is wisely and quietly strategic in favour of the great reformation? The chances are that this last is the true reason. It is most probable that, wishing to do his best, and knowing the littleness of mankind, the price of

prejudice, and the danger of opposing the rude Cæsarism of the age, he has followed to the letter the maxim of combining the wisdom of the serpent with the gentleness of the dove. Well, be it so. "All's well that ends well," and Dr. Payne both begins and ends well.—*The Asclepiad*.



### SOCIETY FOR THE STUDY OF INEBRIETY.

AT the annual general meeting of this Society, held on the 1st of April, at the Medical Society's Rooms, Chandos Street, there was an unusually large attendance of members, associates, and visitors, who accorded a hearty welcome to Dr. F. R. Lees, on his coming to reside in London. The following resolution was moved by Dr. Norman Kerr, and seconded by Canon Barker:—"That this meeting, assembled in the rooms of the Medical Society of London by the Society for the Study of Inebriety, offers a hearty welcome to Dr. F. R. Lees, F.S.A. Scot., Associate S.S.I., congratulates him on the magnificent services which he has rendered to the Temperance Reformation, to Social Progress and to human Freedom, and trusts that his life may be long spared for the continuation of his teaching of the true nature and causes of inebriety."

Dr. NORMAN KERR, the President, referred to the heavy loss sustained by the deaths of the Right Rev. Dr. Lightfoot (Bishop of Durham) and Mrs. Lucas, Associates, and Mr. Harrison Branthwaite, F.R.C.S. Edin., Member, all of whom had been associated with them since the Society was founded. He stated that a memorial from the Society had been sent to the Brussels Congress, and, in describing the proceedings of the year, mentioned that Mrs. L'Oste, of The Oaks, Gipsy Hill, had read a paper which comprised valuable evidence of the curability of inebriate women of the cultured classes, which was separately published, as was also a paper

on "The Law Relating to Drunkenness," by Mr. J. R. McIlraith, M.A., LL.B., Barrister-at-Law. A suggestive paper by H. C. Trestrail, Esq., M.R.C.S., was noteworthy as giving rise to an animated and instructive discussion. The President concluded by proposing the reaffirmation of the following resolution, which was seconded by Dr. Morton and agreed to:—

"That the Society for the Study of Inebriety, without pronouncing any opinion on the details of the measure, cordially approve of the leading principles of Mr. Charles Morton's proposed Bill for the Establishment of Restorative Homes for Inebriates in Scotland, viz.:—(1) Voluntary admission and surrender of liberty on a simple agreement; (2) Compulsory admission and detention of inebriates unwilling to apply of their own accord; (3) Provision at the public charge for the therapeutic care and treatment of impecunious inebriates. The Society earnestly hopes that, either by amendment of the existing Inebriates Acts, or by special legislation, these important improvements may speedily be embodied in law."

"That the Society for the Study of Inebriety respectfully memorialise the Home Secretary and the Government to use their influence to procure the appointment of a Parliamentary Committee to enquire into the results of the working of the Inebriates Acts, with a view to amended and improved legislation for the more effectual control and treatment of Inebriety."



# British Medical Temperance Association.

—o—  
*President.*

Dr. B. W. RICHARDSON, F.R.S.

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### NEW ASSOCIATES.

Mr. F. W. Moss, Edinburgh University.

Mr. G. REWBURY, Edinburgh University.

## IRISH (CENTRAL) BRANCH.

### NEW MEMBER.

Dr. J. N. EUSTACE, Dublin.

## NOTICE.

Members who have not yet paid their subscriptions for 1889-90 are earnestly requested to do so as early as possible.

## SUBSCRIPTIONS RECEIVED DURING MARCH, APRIL, AND MAY.

*One and a half Guineas.*—Dr. Jackson.

*One Guinea.*—Dr. Holdsworth.

*One Pound.*—Dr. Kennedy.

*Ten Shillings and Sixpence.*—Dr. Royds.

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*Two Shillings and Sixpence.*—Rev. E. S. Sumner, D. R. Powell Evans, Esq., G. R. Bickerstaff, Esq., J. S. Crabbe, Esq., A. Senior, Esq., H. C. Venis, Esq., G. Rewbury, Esq., T. Lawson, Esq., W. Carmichael, Esq., G. B. Lendrum, Esq., William Findley, Esq., Adam Findley, Esq., J. A. Hargreaves, Esq., F. W. Moss, Esq.

#### IRISH (CENTRAL) BRANCH.

During year ended 30th April, 1890, five members and eighteen associates joined; the number on the roll now being, members 45, associates 52. Total 97.

The Council appointed Drs. Atcock and Delahoyde delegates (and Drs. Boyce and W. J. Thompson, supplemental delegates) to the "Dublin United Temperance Council," a body consisting of two delegates from each of the Temperance Associations in Dublin and vicinity, which was formed in 1889; its special work being, by united action, according as opportunities shall present themselves, to aid the cause of Temperance; this united action not in any way to interfere with the ordinary work of any of the organisations represented on the Council.

J. WALLACE BOYCE, M.B., *Hon. Sec. and Treasurer of Branch.*

May 16th, 1890.

#### SUBSCRIPTIONS TO STUDENTS' PRIZE FUND.

	£	s.	d.		£	s.	d.
Dr. Richardson ... ..	1	1	0	Dr. Pullin ... ..	0	5	0
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Dr. Moir ... ..	1	1	0	Dr. Holdsworth ... ..	0	5	0
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Prof. Simpson ... ..	1	1	0	Dr. McLean ... ..	0	5	0
Prof. McKendrick ... ..	1	1	0	Dr. Heath ... ..	0	5	0
Dr. Ridge ... ..	1	0	0	Dr. A. Grant ... ..	0	5	0
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Dr. Prance ... ..	0	10	0	Dr. Heywood Smith ... ..	0	5	0
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Dr. Rawlings ... ..	0	5	0	J. J. Ritchie, Esq. ... ..	0	2	6
Dr. Gentles ... ..	0	5	0				

#### THE FOURTEENTH ANNUAL MEETING.

THE fourteenth annual meeting of the Association was held at the house of the President, Dr. B. W. RICHARDSON, on Friday, May 30, 1890.

The minutes of the previous annual meeting, and of the last quarterly meeting, having been read and confirmed, the Hon. Secretary, Dr. J. J.

RIDGE, read the following Report:—

#### REPORT, 1889-90.

Your Council is glad to say that there has been a further increase in the number of Members and Associates during the past year. The present position is as follows:—

	MEMBERS.		ASSOCIATES.	
	1888-9.	1889-90.	1888-9.	1889-90.
England and Wales ... ..	253	253	43	41
Scotland ... ..	51	57	23	30
Ireland (Central) ... ..	42	45	43	53
Ireland (North) ... ..	42	45	—	7
Abroad ... ..	14	11	—	—
	402	411	109	130

There have been twenty-nine new members enrolled during the year, but there have been five deaths and fifteen withdrawals from various causes: hence the net increase is nine. There has been a net increase of twenty-one Associates, but several Associates have become Members on obtaining their diplomas.

Your Council deeply regret the removal by death of two of its members, one, Harrison Branthwaite, Esq., who was among the original founders of the Association, and took a great interest in every movement to promote the spread of total abstinence; the other, Dr. W. Pearce, a young and promising member, a life-abstainer, whose career was prematurely cut short.

The papers read at the General Meetings during the past year have been of great interest and importance. They have been as follow:—

“On a New View of the Action of Alcohol.” By Dr. Buck, of London, Ontario; “On Total Abstinence, as an Alleged Cause of Premature Death.” By the Hon. Secretary;

A report on 279 Returns of Medical Officers of Workhouses as to the use or disuse of alcohol therein;

A report by a Special Committee consisting of Drs. Moir, Morton and Pearce, on the Consumption of Alcohol in Hospitals in 1863 and 1888.

The two reports mentioned afford just cause for congratulation. The investigation into the practice in workhouses revealed that in very few cases is alcohol given to healthy paupers, and the all but unanimous opinion of

the medical officers that the inmates were better without it. The investigation as to the quantity used in hospitals showed that, in all but four or five cases, much less alcohol is used in the treatment of disease now than was the case twenty-five years ago.

These two reports were communicated to the medical and general press, and created considerable interest: they cannot fail to give an impulse to public opinion in a direction we should desire.

In January, 1890, there was published in the *Medical Temperance Journal* the list of names of medical men who endorsed the medical declarations against the use of alcohol. All three declarations were signed by 535; Nos. 1 and 2 were signed by 9; Nos. 1 and 3, by 5; Nos. 2 and 3, by 10; No. 1 alone, by 1; No. 2, by 5; No. 3, by 22; and 9 others endorsed all three with the exception of one or two phrases. This list was also sent to the papers, and was commented on by several.

Your Council arranged for a written competition by medical students in their third year, the subject being “Alcohol, and its Action on the Body.” This was held in January last, simultaneously in London, Edinburgh, Glasgow, and Belfast, and twelve students presented themselves. The examiners, Drs. Richardson, Kerr, Moir, Morton, Simpson, Sinclair, and Ridges, awarded the first prize of £10 to Mr. J. McKendrick, of Glasgow University, and the second of £5, to Mr. W. J. Smith, of King's College,





*Treasurer.*—Dr. T. MORTON.

*Honorary Secretary,*

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W. J. CORYN, Esq.

Dr. LORD.

Votes of thanks were unanimously accorded to the Auditors, W. J. Coryn, Esq. and Dr. Lord, who were

re-elected; and to the President and Hon. Secretary.

### IRISH (CENTRAL) BRANCH.

THE annual meeting of the Irish Branch of the British Medical Temperance Association was held on June 6th, in the theatre of the Royal College of Surgeons, Dublin. Surgeon-General Gunn occupied the chair, and there were present, Surgeon Joynt, Dr. Evans, Dr. A. Elcock, Dr. O'Connell Delahoyde, Dr. J. Wallace Boyd (hon. secretary), Dr. S. M. Thompson, Dr. W. J. Thompson, Dr. E. M. D. Cosgrave, Rev. J. E. Moffatt, Dr. Twamley Watts, Messrs. W. P. Walsh, Callaghan, and J. H. Ferguson.

Dr. Cosgrave, in moving the adoption of the report of the branch for the past year, said that during the time the society was in existence it had extended its sphere of usefulness greatly. The year before he joined the society, eleven years ago, the membership was forty, and now it had risen to 411. The associates had also become an important feature of the society. They were not a society pledged to refuse to give stimulants to those who were sick. They were only

a band of medical men banded together as total abstainers. They were interested in the subject of administering alcohol in cases of disease, but they made no attempt to lessen or to give up its use. (Hear, hear.) It was well known now that stimulants were practically of no use as foods, and should be given as medicines and treated as such. (Hear, hear.)

Dr. Joynt seconded the motion.

Dr. Thompson moved the election of the following officers of the Irish branch for the ensuing year:—

President: Deputy Surgeon-General F. L. G. Gunn; Vice-Presidents, Dr. T. Collins, Dr. J. W. Young; Hon. Secretary and Treasurer, Dr. J. Wallace Boyce, Blackrock, Dublin; Members of Council (Dublin), Dr. A. Atock, Dr. T. Collins, Dr. O'Connell, J. Delahoyde, Dr. Macdowell Cosgrave, Dr. J. A. Scott, Dr. S. Thompson, Dr. W. J. Thompson (country), Dr. Ringrose Atkins. Dr. John Eustace, Surgeon-General Joynt, Dr. Robert Morton; Associates' Committee, Mr. R. B. Sealy,

Medical School, Queen's College, Cork; Mr. W. Farrington, Queen's College, Galway; Mr. S. W. Wilson, Carmichael School, Dublin; Mr. J. G. F. Hearn, T.C.D.

Dr. Evans seconded the motion, and it was agreed to.

Dr. John Eustace moved—

“That the Association, having for its chief object the promotion of ab-

stinence and investigation into the action of alcohol, but not requiring any pledge nor restriction on the liberties of its members to prescribe alcohol, deserves the support of the medical profession.”

Dr. Delahoyde seconded the motion, which was passed.

The proceedings terminated with a vote of thanks to the Chairman.

#### NORTH OF IRELAND BRANCH.

THE annual breakfast of the North of Ireland branch of this society was held in the Lombard Café on Tuesday, 20th May; Brigade-Surgeon M'Farland presiding. Drs. Wilberforce Arnold, J.P.; R. F. Sinclair, Kevin, Leslie Hogg, Scott, J. Milford Barnett, H.M. Indian Army; Lewers, M'Donnell, Austin Killen, and W. G. Mackenzie, hon. sec., were present. After an enjoyable breakfast, the business of the annual meeting was commenced. Dr. Arnold, J.P., proposed, and Dr. Lewers seconded, that Brigade-Surgeon M'Farland should be re-elected President of the branch. The following Vice-Presidents were elected:—Dr. Thompson, J.P.; Anahilt; Dr. Dickson, J.P.; Ballynahinch; Dr. W. Arnold, J.P.; Dr. J. Milford Barnett, Dr. Taggart, J.P., Antrim; Dr. Mullan, Ballymena; Dr. Johnston, Stranorlar; Dr. Martin, Portrush; Dr. Elliott, Derry. Dr. W. R. Scott,

owing to ill-health, having resigned the office of treasurer, Dr. Arnold proposed, and Dr. M'Donnell seconded, a vote of thanks to Dr. Scott for his attention to the duties of treasurer during the past year. Dr. R. F. Sinclair was unanimously appointed Treasurer. The President gave a short address, making special reference to the Sunday-closing Bill, and proposed the following resolution, which was passed unanimously:—“That this branch approves of Mr. Lea's Early Saturday and Total Sunday Closing Bill in its entirety, and considers that it is a fatal mistake to open the public-houses at all on Sunday, and that the earlier they are closed on Saturday the less harm will be done to the community. The branch considers there is probably more evil done by the public-houses on Saturdays and Sundays than during the other five days of the week.”

#### THE STUDY OF INEBRIETY IN AMERICA.

AT the recent meeting of the American Medical Association, at Nashville, Tennessee, the Section of Medical Jurisprudence spent a whole day discussing papers on the criminal responsibility of inebriates. The subjects of the paper were:—“Inebriate Responsibility,” by Dr. Evans; “Medico-Legal Aspects of Insanity and Inebriety,” by Dr. T. L. Wright; “Inebriate Medico-Legal Questions,” by Dr. Crothers; “Medico-Legal Facts, from 5,000 cases,” by Dr. L. D. Mason; and “The Need of a Non-Criminal Jurisprudence affecting Inebriety,” by Dr. Norman Kerr. The Section endorsed the disease view of inebriety, and elected Dr. T. D. Crothers, the leading American specialist on this question, as Chairman for the next year's meeting, at Washington. To ensure a full discussion of the subject, the Section will in future be called the Section of Medical Jurisprudence and Neurology.

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Original Contributions.

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PROFESSOR ROSS ON ALCOHOLIC PARALYSIS.

By R. MARTIN, M.D.

THE eminent neurologist, Professor Ross of Manchester, has recently contributed a valuable series of papers to the *Medical Chronicle*, and other journals, on the subject of Peripheral Neuritis. This is a disease, inflammatory in its nature, affecting the terminal branches of some nerve trunks, especially those distributed to the limbs.

The true nature of the disease was not previously well understood. But, thanks to the elaborate analyses of the cases which have come under the care of Dr. Ross, in hospital and private practice, and of all the cases which he has found reported in the medical journals, our knowledge of it is to-day more clear, comprehensive and orderly, than it was prior to his investigations. Certain diseases, which at one time were supposed to differ widely from each other, have been brought together under one common term, one common description, and one common pathology.

The most remarkable characteristic of these diseases is, that they are generally caused by the action of some poison. The chief forms are, animal poisons, for the most part generated in the body; vegetable poisons like morphia; diffusible agents, alcohol, bisulphide of carbon; metallic poisons, lead, phosphorus, arsenic and mercury.

The most common cause of peripheral neuritis is alcohol. Professor Ross has analysed ninety of this class of cases, some of them having been under treatment by him. We are told that

in all, the clinical picture of the disease, as well as the pronounced habits of the patients immediately before the onset of the symptoms, amply attested that alcohol was the active agent.

The details given in many of the reports were too indefinite in regard to the kind of liquor consumed to admit of exact conclusions. In twenty-two cases, the patients were spirit drinkers; three took absinthe and vermouth; thirteen drank spirits and beer, and five drank beer only. Of the remaining forty-seven it is stated generally of thirty that they "drank to excess," or were "heavy drinkers;" and of the other seventeen, excessive indulgence in alcohol is inferred from such facts as that the patient was known to have suffered from an attack of delirium tremens, or from morning vomiting, and other characteristic symptoms of this form of poisoning.

Professor Ross says :—"Considering all that we now know of the activity of this poison in causing sub-acute and chronic forms of paralysis, there are no good grounds for doubting that it was the active cause in all the acute cases that are ascribed to it. It is indeed highly probable that we may go a good deal further than this, and surmise that alcohol was the active cause of the paralysis in many of the cases of peripheral neuritis, attributed to such an insufficient cause as exposure to cold, &c."

The premonitory symptoms of the disease may differ somewhat in different persons, but there are three which almost always decisively prove that alcohol was the active agent :—

1. Disorders of the tactile sensibility of the extremities, which patients usually describe as numbness of fingers and toes.
2. Vaso-motor spasm of the extremities, named by Raynaud "local asphyxia," and which the patients refer to as "deadness," and coldness of fingers and toes.
3. Severe cramps, which are most frequent and severe in the muscles of the calf of the leg, although these muscles are by no means their exclusive seat.

Although these symptoms, either separately or in various combinations, are met with in many affections besides chronic alcoholism, yet Professor Ross does not think they are ever present in an aggravated form, . . . "except as the result of excessive drinking, or the prolonged exposure to some other (diffusive) poison, like the fumes of bisulphide of carbon."

These symptoms are all the more valuable as affording an indication of secret drinking, because they appear long before there are any signs of paralysis, and at a time when the patellar tendon reactions, instead of being absent, are either normal or exaggerated.

Whilst the majority of the victims are heavy drinkers, yet it is found that some very moderate drinkers are liable to these evils.



Professor Ross says:—"It is indeed surprising what a small quantity of alcohol suffices to induce the premonitory symptoms in some subjects; the females of neurotic families being particularly sensitive to its action."

The *motor* disorder begins occasionally abruptly, and extends rapidly; but, as a rule, the onset is slow, gradual, and insidious, and it is then found that the patient has had probably for months difficulty in executing certain actions, like buttoning the clothes, and that he has at the same time lost all spring in his walk, and has experienced great difficulty in ascending a stair, while his gait has been unsteady. Cramps are often most troublesome soon after the patient goes to bed, and just as he is about to fall asleep, or again in awakening in the morning. The affected calf is drawn up into a "lump," and the patient has generally to jump out of bed and press his foot on the floor. He has to rub the affected extremity with his hands, and from twenty minutes to half an hour may elapse before the spasm relaxes sufficiently to enable him to return to bed. The fingers are also liable to be attacked, and these spasms are particularly apt to come on while the patient is engaged in some kind of manipulation, such as sewing, writing, or playing the piano. These cramps are seldom altogether absent, and in the majority of cases they distress the patient for years before paralysis declares itself. At times the pains are almost unbearable, darting through the limbs with lightning-like swiftness, and occasionally causing the patient to scream with agony.

When the paralysis is fully constituted, the characteristic distortion of double ankle drop, followed later by double wrist drop, make their appearance, and the patient manifests the well-known walk described as the high stepping gait. A careful examination generally shows that the paralysis of the extensor muscles, which causes the drop at the wrists and ankles, is preceded by various distortions of the fingers and toes, and inability to perform accurately and without tremor certain special movements with the fingers.

The paralysis may extend to the muscles of the back and neck, so that the patient is unable to sit up in bed or to move his head on the pillow.

The vaso-motor symptoms consist of pallor of the hands and feet, caused by vaso-motor spasm; or redness and lividity of them, which becomes especially marked when the limbs are dependent. The colour of the hands often changes rapidly from pallor to redness, according as they are held in the vertical or dependent position. Closely connected with the vaso-motor mobility are puffiness and swelling, which are frequently observed on the backs of the hands and feet. In some cases the spasm

proceeds to such a degree as to cause gangrene of the tips of the fingers. Professor Ross gives a graphic account of a case of this kind which came under his observation.

The *secretory* phenomena consist of profuse sweating, which is sometimes general, and at other times more or less restricted to certain parts, such as the forehead, the backs of the hands and the feet.

The *trophic* phenomena consists chiefly of rapid emaciation of the muscular tissues of the body and certain changes in the skin and its appendages. The affected muscles are generally flaccid; no tension is provoked in them by passive movements. They undergo rapid wasting, although the emaciation may be masked for some time by the presence of an excess of subcutaneous fat. But when the disease becomes chronic, the fat disappears, and the muscular masses are then seen to be greatly emaciated, the limbs being so thin and attenuated as to appear to consist of nothing but skin and bone. The skin loses its wrinkles and becomes smooth, that which covers the fingers sometimes becoming hairless and polished, just like the glossy skin described by Paget as occurring in local injuries of nerves.

The nature of the lesions, which occur in peripheral neuritis, will be seen from Dr. R. T. Williamson's report on the microscopical appearances in a case which had been under Professor Ross.

We are told that to the naked eye the nerves appeared normal; under the microscope marked changes were discovered, more especially in the smaller branches. There were found extensive degenerations of the nerve fibres, a few healthy ones being found alone in some of the nerve bundles. In a transverse section it was seen that in the finer bundles the fibres were widely separated from each other, instead of lying close together as in health. The intervening tissue was formed of connective tissue, in which was imbedded a large number of round or oval nuclei, while it presented a large number of small more or less round spaces, representing the position of the nerve fibres which had disappeared, and were now replaced by fibrous tissue.

A small branch of an interosseous nerve showed that the white substance of Schwarin was broken up into more or less globular masses of variable size, the fibre appearing smaller; at other points the white substance and axis cylinder had disappeared.

*Sex.*—Of the ninety cases dealt with by Professor Ross, forty-one were females. Of the forty-nine males attacked, fourteen died; out of the forty-one females, thirteen died. The worst cases of paralysis occurred in women, viz., those in which the hands and feet became dropped at the wrist and ankles, and in which the muscular masses of the extremities undergo so much wasting.

A much greater proportion of female drinkers are attacked by paralysis in proportion to the number of male drinkers. This is chiefly due to four things:—(1) The greater delicacy of women's constitution. (2) The greater opportunities for indulgence; women, as a rule, not having to go out to work, can drink throughout the day. (3) Women have greater opportunities for concealing the habit of drinking, and have greater reasons for doing so than men. (4) The sedentary lives which women lead are favourable to the deleterious action of alcohol. Dr. Ross might have added that the facilities which during the last thirty years have been so greatly increased in the case of women, for obtaining spirits at the places where groceries are sold, have no doubt led in some cases to hard drinking amongst women.

The Professor brings out a very curious fact in relation to the period of the year when attacks of alcoholic neuritis most frequently come under observation. We are told that a considerable number of the cases have occurred about the end of December or the beginning of January, *i.e.*, the festive season. Thus the time which should bring increased health and happiness, brings disease and anguish in their most terrible forms to many of those who seek their chief pleasure in alcoholic indulgence.

*Age.*—With regard to age, of the ninety cases collected, thirteen occurred between twenty and thirty, twenty-nine between thirty and forty, thirty-five between forty and fifty, ten between fifty and sixty, and one only above sixty, while in two the age is not stated. It will thus be seen that by far the majority of the cases occur between thirty and fifty years of age, and that the affection is seldom met with under twenty or over sixty years.

*Employment.*—Professor Ross says that nothing very definite can be made out with regard to the relation of the disease to occupation, except that it is frequently met with in butchers, commercial travellers, and above all in beerhouse keepers and publicans; he adds, "A considerable proportion of the cases of disease in women, which have come under my observation, were landladies."

*Heredity.*—Respecting the influence of inheritance, the information was somewhat scanty, although it was sometimes stated that the patients' parents, brothers or sisters, have been drinkers, and at other times a neurotic family history is mentioned.

Such is a *resumé* of the chief points discussed by Professor Ross in those parts of his papers on Peripheral Neuritis which deal with the action of alcohol.

It is sincerely to be hoped that the laborious efforts which Dr. Ross has made, in order to place the facts relating to a terrible disease in their true light before his professional brethren, will receive the serious attention they deserve. The lack of interest

which has hitherto been manifested in regard to the subject—to put the matter in the mildest possible manner—is very unfortunate. It will be to the credit of the profession, and will contribute to their usefulness, if they study closely these papers. As Professor Ross well puts it:—“Nothing helps us so much in the treatment of a disease, if it be of such a nature as to be capable of cure or amelioration, as an early recognition of the symptoms of its inception. This statement, true with regard to most affections, assumes additional significance when we have to treat a disease like alcoholic neuritis, which can be readily cured in its early stages by the simple withdrawal of the poison, without any special treatment, but which when fully established may resist all treatment, or prove rapidly fatal.”



## THE INFLUENCE OF ALCOHOL ON MICRO-ORGANISMS AND CELL-PROTOPLASM.

By DR. J. JAMES RIDGE.\*

ETHYLIC alcohol has always been recognised as poisonous to all life in certain large doses. It is also agreed that the effect of doses smaller than suffice to destroy life is more or less injurious in proportion to the quantity. But, on the other hand, it has also been considered by many to be beneficial in very small, though undefined amounts, and not injurious unless these are exceeded.

Alcohol has also been regarded as an antiseptic, when present in sufficient proportion, through its power of preventing decomposition and putrefaction. In quantities insufficient to prevent or hinder putrefaction, its influence has been disregarded or considered *nil*.

About six years ago I published, at a Congress of the Sanitary Institute, the result of some experiments I had made to determine the effect of very small quantities of ethylic alcohol on cell protoplasm, and two years ago I supplemented these by experiments on the influence of similarly minute doses on the processes and agents of decomposition.

These experiments are not, I think, generally known, and have not, therefore, exercised the influence which it seems to me they ought to exercise on the judgment of the profession with regard to the action of alcohol.

Having extended these experiments, repeated and confirmed them, I venture to submit them to-day to your critical consideration. My attention having been directed to the unity of the

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\* Read at the Annual Meeting of the British Medical Association at Birmingham, August, 1890.



nature both of animal and vegetable protoplasm, and to M. Bernard's interesting experiments on the narcosis of cress seed by chloroform and ether, I tried the effect of alcohol on them. As the quantity which will affect the seed without killing it was found to be very minute, and as the cress takes a few days to grow, it was necessary to prevent the escape of the alcohol by evaporation, and to this end similar quantities of seed, fluid, soil and air, were enclosed in bottles tightly corked, and exposed to exactly the same influences of light and heat. The only difference was in the amount of alcohol in the bottles. This varied, being respectively 1 in 100, 1 in 200, 1 in 1,000 (one drop in about two fluid ounces), 1 in 2,000 (one drop in about four ounces), 1 in 4,000 (one drop in about eight ounces), 1 in 10,000 (one drop in about one pint), and 1 in 20,000 (one drop in about one quart). One per cent. was found enough, as a rule, to destroy the vitality of the seeds: one-half per cent. allowed sometimes a slight growth. The smaller quantities all proportionally hinder the natural growth of the seed, the effect of one drop in a pint of water, and even of one drop in a quart, being distinctly visible after a few days. I was quite unprepared for this result, but it has been tested repeatedly, and, if all the conditions are exactly the same, the action of alcohol is always injurious to this vegetable cell protoplasm in proportion to its amount even in infinitesimal quantities.

Besides stunting and hindering the growth of the seed, the effect of alcohol is clearly seen in preventing the proper development of chlorophyll in the tissues, thereby interfering with the proper performance of its vital functions. The young plants are perfectly or partially etiolated, and present a very sickly appearance. This becomes increasingly manifest as the higher of the these small proportions is reached.

I have corroborated this by observing the effect of alcohol on the growth of fresh water algæ, such as *confervæ*, the result being that its chlorophyll granules are more or less deficient.

It may be thought, perhaps, that animal cell-protoplasm is differently affected.

To test this I placed under watch-glasses a similar number (namely, twelve) of the eggs of a blow-fly, all laid at the same time, on blotting-paper moistened with water, or with water and alcohol in different proportions, namely 2 %, 1 %,  $\frac{1}{2}$  %,  $\frac{1}{4}$  %,  $\frac{1}{8}$  %,  $\frac{1}{16}$  %,  $\frac{1}{32}$  %, the last being one drop in about one-third of a pint of water. The experiment resulted as follows:—

Percentage of alcohol	2	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	none
Number hatched in 24 hours	0	2	1	5	5	7	12	11

In twenty-four hours all were hatched except those exposed to 2 %.  
In another case:—

Percentage of alcohol	...	1	$\frac{1}{2}$	none
Number hatched in 24 hours	...	5	5	8

These experiments clearly prove that the action of alcohol on animal protoplasm is similar to that on vegetable protoplasm, and that it hinders healthy growth in proportion to its amount (other things being the same), and in astonishingly small proportions. That a larger proportion is required to affect the blow-fly eggs may reasonably be attributed to the greater rapidity of their development.

I have further experimented in a similar way upon those minute entomostraca which abound in many stagnant pools—*Daphnia pulex*, the water flea. Enclosing several of these in bottles, under exactly the same conditions (as far as I could know), but with different amounts of alcohol, the results were as follows:—

#### DAPHNIA—Experiment I.

Percentage of alcohol	1	'5	'1	'05	'025	'01	'005	none
After eight days	dead	dead	dead	dead	dead	living	living	living

#### DAPHNIA—Experiment II.

Percentage of alcohol	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	none
Next day	...	dead	living	living	living	living	living
After three days	...	dead	dead	dead	dead	living	living
After four days	...	dead	dead	dead	dead	dead	living

Twelve days after, those without alcohol were still living, and as lively as ever.

#### DAPHNIA—Experiment III.

Percentage of alcohol	1	'5	'25	'1	'05	'01	'005	none
After two days	{ some dead }	dead	dead	dead	living	dead	dead	living
After three days	dead	dead	dead	dead	living	dead	dead	living

#### DAPHNIA—Experiment IV.

The percentage of alcohol being the same as before all continued to live for several days. This result was so different that

I have been pondering what explanation can be given of it. I think it admits of a very reasonable explanation, but before I give that I must direct your attention to another series of experiments on the influence of alcohol on putrefaction and on the growth of septic micro-organisms.

I accidentally noticed while experimenting with these minute quantities of alcohol that the water became turbid more rapidly when a minute quantity of alcohol was present, and after two or three days it was possible to decide which vessel had most alcohol in it by the degree of its turbidity. I tried several sorts of matter of decomposition—animal, such as dilute broth, gelatine, &c.; infusion of hay, and other vegetables; and even organic salts, such as in Pasteur's fluid. There can be no doubt whatever that alcohol acts very differently on these septic micro-organisms and on cell protoplasm.

*Experiment.*—If tubes, closed with flat glass at both ends, be filled with water containing some decomposable material and alcohol in various percentages, it will be found after a few hours that the turbidity is greatest when 2 per cent. is present; with 1 per cent. the turbidity is less, and so on; but with much lower percentages it is, as yet, scarcely noticeable. After a day or two, according to the temperature, the effect of these smaller quantities is perfectly evident, and even one drop in a pint largely assists the growth and multiplication of those micro-organisms on which the turbidity depends. After three or four days, more or less, the tube containing 2 per cent. becomes clearer through the death of the organisms, possibly by the exhaustion of the decomposable material.

It is very significant that alcohol should affect these two kinds of protoplasm in such an opposite way. We know that there must be some difference between them on other grounds. The life, or vital force, which belongs to a living cell enables it to resist the influence of the micro-organisms of decomposition; as soon as life departs these micro-organisms can perform their part and break up the dead protoplasm. We may, therefore, call the one kind *constructive protoplasm*, and the other *destructive protoplasm*. Alcohol in small quantities is injurious to the former, and beneficial to the latter. Itself a product of decomposition, it assists rather than hinders similar decompositions below certain quantities.

But to explain the apparent failure of some of the experiments. It will be remembered that in one case all the *Daphniæ* survived notwithstanding that alcohol was present up to 1 per cent.; in another those survived with .05 per cent. of alcohol, though those in water both with more and less alcohol, perished; in a third

1 half per cent. *Daphniæ* lived much longer than all except those in water only. It must be noted that in every case these purely water *Daphniæ* survived as long as or much longer than the rest. The explanation I suggest is, that when the *Daphniæ* died it was not due to the poisonous action of alcohol directly, but indirectly through the lowering of their vital resistance to morbid influences (whether micro-organisms or not I cannot now certainly say). When these morbid causes are present the presence of alcohol enables them to triumph; when they are absent the animals may survive, at least much longer, in spite of the injury done by the alcohol. When the alcohol is absent the vital resistance of the *Daphniæ* is sufficient to enable them to resist the pernicious influences of the causes of disease and death. I see no other rational explanation.

This injurious effect of alcohol is illustrated by the greater liability of drunkards to succumb to the attack of the micro-organisms of cholera, yellow fever, &c.; by the greater amount and longer duration of sickness among non-abstaining members of benefit societies; and by the greater longevity of total abstainers whenever they can be compared with non-abstainers under similar conditions. It is also illustrated by the greater mortality of those suffering from enteric fever who are treated with alcohol, as shown by Professor Gairdner. I see no reason to doubt that alcohol depresses the vitality of the constructive cells of the human body, and stimulates the vitality and multiplication of those destructive micro-organisms which prey on and tend to destroy it.



## ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.

*A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by Charles E. Sajous, M.D. and Seventy Associate Editors. F. A. Davis, Publisher, New York and London.*

IF anything were needed to demonstrate the activity of modern medicine the five volumes entitled the "Annual of the Universal Medical Sciences," edited by Dr. Sajous and seventy assistants, would supply it. These volumes, the result of the enterprise of our American cousins, contain the concentrated essence of 1,250 medical papers, papers read before societies, pamphlets, &c., by hundreds of medical men scattered all over the globe, and on a scale which would have been impossible in a single volume. The subjects are classified so that the



busy practitioner can easily refer to any upon which he may desire to learn the results of the latest observation and research. There is a copious and accurate general index, a valuable index of therapeutic agents recommended in the treatment of the several diseases, and a list of the authors quoted on each subject. It will be readily understood that all these observations are not equally valuable. Some of the statements are merely the opinions of more or less competent men, but the intelligent practitioner will read with discretion, and will undoubtedly find an immense amount of concentrated food for thought and indications for further observation.

In such a cosmopolitan and encyclopædic publication there are necessarily some references to the action and effects of alcohol and its use in the treatment of disease. Among the former we notice the observations of Mohilansky, published in the form of an inaugural dissertation at St. Petersburg. This gentleman studied the dietetic action of alcohol on fifteen healthy men in order to determine the nitrogenous metabolism and the assimilation of the proteids and fats by means of the occasional use of alcohol. His conclusion was that in those habituated to its use alcohol increases the appetite and the assimilation of nitrogenous substances, whereas in total abstinens the assimilation of nitrogen is diminished. Whether total abstinens habitually assimilate more than alcohol-takers is not stated. The increased assimilation is attributed by him to improved digestion. But the explanation is simple enough. Looking to the fact that alcohol actually reduces assimilation, as proved by the effect on abstinens, we have the proof that the stomach accommodates itself within certain limits to any noxious irritant, and in the absence of the irritant (in this case alcohol) for a day or two it does not recover itself immediately. The appetite of the healthy abstainer needs no alcohol to stimulate it and the apparent stimulation in the non-abstainer only brings the appetite up to what may be called its normal amount. On the other hand, it was abundantly shown that alcohol in every case decreased the metabolism of nitrogenous matter or the disintegration of proteids in the body, and this was often so even when small doses were taken, invariable with moderate or medium quantities, and remains perceptible for some time, even after discontinuing the alcohol. This, after all, is the best test of the value of alcohol, for what is the good of taking in more nitrogenous matter if the alcoholised individual is less able to make use of it? Mohilansky attributes this effect to inhibition of the systematic oxidation processes, and, further, to its changing the blood-pressure, dilating blood-vessels, retarding the circulation and depressing the

bodily temperature. This is enough. But alcohol was also found to diminish the assimilation of fat, more fatty acids escaping with the fæces. It did not act as a diuretic.

In the *New York Medical Journal* Dr. Farrington denies the value of alcohol as a therapeutic agent, being guided by his own experience and that of others.

In reference to the Etiology of Bright's disease Dr. Beevor's statements in the *British Medical Journal* of 2nd Feb., are referred to, in which he gave records of 100 cases under Dr. George Johnson; these were all men over twenty-five years of age, and 50 per cent. of them were habitual, or free, drinkers.

There is a valuable summary of various papers and proceedings dealing with alcoholism and inebriety, and the treatment of inebriates. Among these we notice that Porritt (*Lancet*) records an account of an epidemic of lead poisoning in an English community, due to the water supply carried in lead pipes, and calls attention to the more pronounced effects observed in those patients who used alcoholic beverages, showing the influence of alcohol in intensifying the effects of lead. Dr. Tuke's remarks are quoted to the effect that he was not prepared to admit unreservedly that insane drinking, or dipsomania, was synonymous with habitual drinking, or that habitual drinking was necessarily disease. He drew a distinct line between vicious drinking and insane drinking, and it was only in the latter condition that he thought they had any right to ask for legislative measures of control—control meaning seclusion from society. Dr. Clouston considered that the practice of alcoholic drinking in certain cases is a disease, and that dipsomaniacs should not be placed in asylums for the insane.

The editorial summary of the debate before the Pathological Society on the pathology of chronic alcoholism is quoted at length from the *British Medical Journal*, from which we quote a few sentences: "The kind of change produced by alcohol, when it produces any change at all, is essentially the same in all the organs of the body—degeneration of the parenchyma and increase of the connective tissue. . . . As to the liver, the primary change was the increase of the connective tissue, the effect on the parenchyma being subsequent. The paucity of changes in the nervous system was attributed to the blood supply being so good that the poisoning was only transient; but all the speakers agreed that the drunkard's brain is a wasted brain—a senile brain. . . . It was shown that alcohol only produced the small granular kidney through the medium of gout, but frequently caused hypertrophy. . . . There was a general consensus of opinion that alcohol was a factor of considerable importance in the production of tuberculous, and particularly of the pulmonary forms of it." Dr.

Payne's summary is also given: "That the action of alcohol on the tissues is a toxic one, and similar to that produced by toxic agents generally, the analogy being very close indeed with the action of mineral poisons, such as phosphorus, lead, and copper, and also with the specific poisons of diphtheria and beriberi. 2. That the organic changes produced by alcohol possess more importance than has hitherto been ascribed to them."

There are also interesting summaries of papers on the morphia habit, the cocaine habit, and the tobacco habit, which well repay perusal. The volumes are illustrated, especially the surgical reports, with chromo-lithographs, engravings and maps, in an excellent style.



## Miscellaneous Communications.



### ALCOHOL IN FEBRILE DISEASES.

THE ADDRESS ON MEDICINE.

*Delivered at the Forty-first Annual Meeting of the American Medical Association, held in Nashville, Tenn., May 21st, 1890.*

By N. S. DAVIS, M.D., LL.D., of Chicago, Ill.

THE intelligent and thoughtful physician, reasonably familiar with current medical literature, has not failed to notice the extraordinary activity in many lines of investigation, and the rapidity of changes in almost every department of practice, that characterise the present period of time. And if he could safely regard all positive assertions as facts, all changes as progress, and all progress as genuine improvement, then surely he might justly claim the last two or three decades of time as an epoch of improvement in the science and art of medicine without a parallel in all the past centuries.

It is no part of my present purpose, however, to attempt a review of the general field of medicine, but rather to ask your attention to only a limited number of the topics and tendencies that are at present exerting an important influence on the progress of true medical science and on the results

of medical practice. Every period of unusual activity of investigation and advancement in any department of the great field of medicine may be traced to some new discovery in the collateral sciences, or to some new application of facts and physical laws already well known. Thus the simple application of the anæsthetic properties of nitrous oxide, ether and chloroform, to the prevention of pain, supplemented by the application of antiseptics and germicides for the prevention of supuration, has not only given to the practical surgery of to-day its extraordinary development, but has enabled its votaries to boldly invade every region or cavity of the human body to remove morbid developments or to repair injuries. So, too, the application of chemical and physical laws to the study of the composition and minute structure of organised tissues, both in health and disease, by the analytical processes of the chemist,

and the revelations of the compound microscope and the spectroscope, not only revealed to us the minute structures and their modes of development from the simple vitalised speck of bioplasm to the most delicate and complete of animal structures, but they soon detected in morbid conditions new chemical products or ptomaines and the germs of fermentation and suppuration.

It is to these simple beginnings we owe the unparalleled activity in the application of chemistry and microscopy to biological, bacteriological, etiological, pathological, sanitary and therapeutic investigations, that has characterised the last two decades. Indeed, so strongly has the medical mind become engrossed in the microscopic search for bacteria or micro-organisms as causes of disease, and in the minute structural changes constituting morbid anatomy, that true pathology, or the philosophy of morbid processes and the laws that govern them, has been nearly lost sight of. And as a necessary coincidence of this intense search for specific causes of diseases, the mind of the practitioner has been directed more and more to the search for specific remedies for each disease, and the chemist has lost no time in supplying him with an almost endless variety of antiseptics, germicides, antipyretics, and antidotes; and when these were not found in sufficient variety among the active principles of vegetable remedies and the organic compounds, he has reversed his ordinary processes and begun to manufacture, synthetically, a prolific series of complex organic compounds, each claimed to possess such qualities as fit it for specifically controlling some one or two important symptoms of disease, more especially, pain and heat—analgesic and antipyretic.

So greatly have these tendencies influenced a large proportion of practitioners that much of the bedside practice, especially in reference to the treatment of acute general diseases, has become little more than a clerical process. To note daily the line of *temperature* as indicated by the clinical thermometer and adjust the quan-

tity of the favourite antipyretic in accordance therewith, and see that the patient has plenty of liquid food slightly seasoned with some alcoholic liquid at first, but steadily increased as the disease progresses, constitutes the routine; but little attention being given to the condition of the important secretory and excretory organs, to the varying conditions of vital processes in different stages of disease, or even to local pathological changes that are liable to take place in the progress of all general fevers.

If it were true that simple elevation of temperature constituted a general fever or any form of acute general disease, and that the general molecular degenerations were caused by the high temperature, as claimed by some, and even that the intestinal and other local lesions were only the result of Nature's, so-called, effort to expel the offending material or specific cause from the system, then certainly, to note the temperature and skilfully to adjust the antipyretics with nourishment would constitute the chief duty of the physician at the bedside of his patient; and his success would depend mainly upon the accuracy of his thermometric observations and the efficiency of his antipyretics.

But abundant clinical facts, carefully observed and accurately recorded, show with the clearness of a mathematical demonstration that a general fever, instead of being simply high temperature, is a complex morbid condition involving coincident disturbances of the properties of living matter, and of the metabolic or molecular movements constituting assimilation, nutrition, secretion, disintegration, and excretion; the elevation or depression of temperature being only one of the many symptoms of more or less importance resulting from such complex disturbance. This is sufficiently proved by the familiar fact that, though we reduce the febrile temperature three or even six times a day with our antipyretics, it rises again just as often until it has become a generally recognised fact that this class of remedies



exert little or no influence on the duration of the general disease. A striking illustration of this is furnished by the statistics obtained by Dr. Hood from the records of the St. Bartholomew's and Guy's Hospitals relating to the treatment of acute articular rheumatism or rheumatic fever. In these two hospitals he found recorded over 2,000 cases, 800 of which had been treated before the introduction of salicyl compounds, antipyrin, acetanilid, salol, &c., in the treatment of febrile diseases, and the remaining 1,200 since these became the leading remedies used. By a careful analysis of these cases as recorded, Dr. Hood shows that, while the use of the class of remedies just named afforded the patient much earlier relief from pain, and lessened the temperature, it resulted in neither shortening the duration of the disease nor lessening the number of cardiac complications, or the frequency of relapses. My own clinical observations, both in private practice and hospital wards, have shown that the use of the same remedies in the treatment of typhoid fever, for the control of temperature from day to day in antipyretic doses, not only does not lessen the duration of the disease, but it directly increases the tendency to impairment of the respiratory function, to the much dreaded cardiac weakness, and to the super-vention of sudden and unexpected collapse after the middle period of the disease. And I have been unable to find anything in the medical literature of the past few years showing that the very general use of the antipyretics under consideration, in the treatment of continued fevers, had resulted in either lessening the ratio of mortality or their duration, but rather the reverse. It is obvious, therefore, that the real value of any remedy in the treatment of acute general diseases cannot be determined by its specific effect in temporarily controlling one or two prominent symptoms, but the mode of its action on the elements of the blood on the molecular movements in the tissues and secreting struc-

tures, and on the nervous centres, must be ascertained with a reasonable degree of certainty. If it should be found that a given antipyretic and analgesic remedy relieved pain and diminished temperature by producing a direct sedative or depressing influence on the sensory, vaso-motor, and trophic, or heat-centres of the nervous system, or by such direct effect upon the hæmoglobin or corpuscular elements of the blood as to lessen the oxygenation and decarbonisation of that fluid, it is evident that its continued use from day to day through one, two, or three weeks, would increase the danger of parenchymatous degenerations, exhaustion, blood impoverishment, and collapse; or a protracted convalescence and imperfect recovery; effects very poorly compensated by the diminished temperature and less restlessness induced by it. Physiological investigation long since demonstrated the important fact that all nerve sensibility and all metabolic or molecular changes in the living body were dependent on the presence of arterial blood containing oxygen; and later investigations have equally demonstrated that the temperature of the living body is maintained at a given normal standard by the balance between the anabolic or constructive molecular changes as heat producing, and the katabolic, or retrograde and eliminative changes as heat discharging, processes both subject to more or less modifying influence by the vaso-motor or the heat centres of the nervous system. When these several processes maintain their normal relative activity the temperature remains natural. But if the anabolic processes are diminished or increased while the katabolic changes remain natural, the temperature will fall or rise accordingly; and the same will be true if the katabolic processes diminish or increase while the anabolism remains normal. I may safely assume, therefore, that all acute general diseases or fevers, accompanied by abnormal temperature, include as an essential part of their pathological processes profound dis-

turbance of these intricate metabolic processes in some direction; the particular direction being determined by the nature of the special cause or causes of such form of disease.

It is equally safe to assume that all antipyretic remedies produce their effects by either directly or indirectly increasing the katabolic or heat discharging process, or by diminishing the anabolic changes, or possibly by both. I use the word *indirectly* here, for the reason that a remedy exerting a direct influence on the vaso-motor or heat nerve centres would indirectly influence the general temperature chiefly through the heat discharging processes; while a remedy capable of so acting upon the hæmoglobin or corpuscular elements of the blood as to lessen the conversion of the hæmoglobin into oxyhæmoglobin, by which the carbon dioxide is discharged, and the oxygen is received and carried to the systemic capillaries constituting the essential function of respiration, would thereby indirectly retard all the anabolic changes, and, in doing so, lessen heat production. It is evident that a remedy producing its antipyretic effect by the last-named method must be used with great caution, and only for limited periods of time, lest while lessening the febrile pyrexia it so far retards metabolism generally as to end in fatal parenchymatous and tissue degenerations. And yet facts have been rapidly accumulating which render it highly probable that nearly all the complex artificially prepared organic compounds that have been successively urged upon the attention of the practitioner as efficient antipyretic and analgesic remedies during the last few years belong to this class. Abundant clinical observations and numerous experiments on animals by many careful investigators have shown that salicylic acid and salicylates, antipyrin, kairin, acetanilid, phenacetin, exalgine, &c., all produce their antipyretic and analgesic effects by more or less direct interference with the function of the hæmoglobin of the blood, and a marked

depressing or paretic effect on the sensory, vaso-motor, and excito-motor nerve-centres. Their effect on the corpuscular constituents of the blood is seen in the many cases of profound cyanosis already reported as having occurred during their use as remedies in the treatment of disease; and their equally direct effect on the important centres in the base of the brain and in the medulla oblongata is fairly demonstrated by the experiments of Batten and Bokenham, Botkin and Sawadowski, and others, as well as of their prompt effect in diminishing pain and nervous excitability. Their marked effect in impairing the assimilative and general metabolic processes is shown by the diminished conversion of glycogen into sugar in the liver and the muscles, as proved by Lepine and Porteret; the decided diminution in the products of nitrogenous elimination, more especially of the urea, the sulphates and phosphates; and the reduction of the mammary secretion during lactation.

The very interesting series of observations made by Riess during the administration of antipyrin in typhoid fever seemed to prove conclusively that the drug held in check some of the most important metabolic changes to a remarkable extent. Not only was the excretion of urea greatly diminished, but all the solid constituents of the urine were diminished, and the total quantity of urine also, to a greater extent than could be explained by the increase of cutaneous exhalation (see Dr. Cash's address).

The foregoing clinical and experimental facts, with many others that might be cited did time permit, demonstrate that all the artificially prepared and chemically complex antipyretics recently brought into such general use are not merely antipyretics and analgesics — that is, capable of promptly controlling pyrexia and pain, but also that they are equally active retarders of nutritive and tissue metabolism, and depressants of nerve force and sensibility. In other words, their an-

tipyretic and analgesic effects are produced by their interference with the most important metabolic processes and nervous functions on which heat production and nerve sensibility depends. The logical and necessary inference is that they cannot be used in doses sufficient for efficient antipyretic effect for any length of time without seriously impairing the quality of the blood, the nutritive or general metabolic processes, and depressing the vaso-motor, cardiac, and sensory nerve functions. For temporary relief in many neuralgic and spasmodic affections, and the early mitigation of pain and high temperature during the first two, three, or at most four days of such excessively painful and active general febrile affections as acute articular rheumatism and dengue, they serve an excellent purpose, by greatly lessening the suffering of the patients while they are being brought under the influence of other remedies of more curative value.

But in the group of general acute diseases of which typhoid fever is the most important example, arising from special causes that from the beginning lessen the sensibility and natural activity of the nervous centres, impair the quality of the blood, and so interfere with tissue metabolism as to cause general molecular degenerations, thereby creating a pyrexia of from two to six weeks' duration, there is no rational indication for the use of this class of remedies. The patients seldom suffer such acute and persistent pain as to demand the use of an analgesic, or even an active anodyne. The pyrexia is moderate at first, but advances persistently, and though temporarily controlled by each dose of the antipyrin or acetanilid. it as regularly returns as soon as the force of the dose is expended. Hence, to continue the desired reduction of temperature, the antipyretic dose must be repeated from two to three times in the twenty-four hours, and if this is done before the natural time for commencing defervescence or approach of convalescence, the antipyretic has added so much to the impairment of respiratory and car-

diac nerve force, as well as to the molecular tissue and blood degenerations naturally caused by the special cause or causes of the disease, that in very many cases a dangerous, and sometimes a fatal, degree of prostration rather suddenly supervenes some time during the third week of the disease, characterised by a frequent and weak pulse, inefficient respiratory movements from rapidly increasing hypostatic pulmonary engorgement, a dingy or leaden hue of the surface, with sweating, impairment of the special senses, with mental apathy, and some impairment of the bladder and rectum.

It being generally conceded that the natural heat-discharging processes are radiation, cutaneous and pulmonary exhalations, and evacuations generally, it seems to me far more safe, in all the typhoid and lower grades of continued fevers, to relieve the excess of heat by increasing these natural processes, than by any remedies that endanger increased blood and tissue degenerations and depression of nerve force. Ample experience has demonstrated that this can be efficiently done by frequent sponge bathing with water at such temperature as is most agreeable to the patient, aided in extreme pyrexia by wrapping the patient in the cold wet sheet a few times, which can be done not only without danger of causing depression, but with a positively refreshing influence.

I am constrained, from a sense of duty, to add some comments on the *modus operandi* of another remedy extensively used in medical practice, and especially in the treatment of continued fevers. From the length of time it has been in use and the large amount used it would seem that its physiological and therapeutic effects should have been fully demonstrated long before this time. Instead of this, however, these effects still elicit expressions of opinion and modes of practice of the most varied and contradictory character. I allude to alcohol as it exists in the various fermented and distilled liquors, and exclusively as used as a remedy in the



treatment of disease. Instead of spending your time on a history of the various opinions and investigations pertaining to this subject, I shall invite your attention directly to as concise answers as possible to the two following questions, viz.: What are the effects of alcohol on the functions of the more important organs and upon the constituents of the blood and tissues of the living body? What are the therapeutic indications it is capable of fulfilling in the treatment of diseases, more especially of general fevers?

In answering the first question it may be stated that alcohol, when taken into the stomach in a diluted form, undergoes no gastric digestion, but is rapidly absorbed and carried directly into the venous blood, and through it reaches first the liver and the lungs, and from thence, in the arterial blood, it is carried to every organ and tissue of the body, and some part of it is speedily eliminated, unchanged, through the lungs, kidneys and skin. This much appears settled beyond further controversy. But what becomes of the large part that cannot be recovered through the excretions and exhalations, and what effect is produced by its presence, on the constituents of the blood, on the functions of the brain and nerves, on the metabolic processes, and on the temperature of the body?

The experiments of Schulinus and Salzynski show conclusively that about 10 per cent. of the alcohol taken disappears, or at least loses its identity immediately on mingling with the blood. If this sudden disappearance of 10 per cent. of the alcohol was caused by its immediate oxidation, an ordinary dose could not fail to quickly increase the heat production and proportionately increase the resulting carbon-dioxide and water. According to the accepted formula, the complete oxidation of 1 gram of absolute alcohol liberates 9 kilogram degrees of heat. Therefore, if 20 grams of alcohol were introduced into the blood of an individual, and one-tenth, or 2 grams, immediately disappear by oxidation, 18 kilogram degrees of heat

should be at once added to the temperature of that fluid, with a corresponding increase in the production of carbon-dioxide and water. And if only from 2.5 to 15 per cent. was subsequently eliminated unchanged, as claimed by numerous experimenters, leaving about 17 grams of the alcohol to disappear by subsequent oxidation during the next few hours, it should liberate 153 kilogram degrees of heat more with its resultants, carbon-dioxide and water. But a careful review of all the experimentation upon this subject shows no evidence of such marked increase in either heat production or in carbon-dioxide by the presence of alcohol in the blood. On the contrary, the most recent and accurately conducted experiments of Dr. Edward T. Reichert, Professor of Physiology in the University of Pennsylvania (see *Therapeutic Gazette*, Feb. 15, 1890), show results decidedly the reverse. He performed eighteen experiments on dogs with the aid of an improved calorimeter, by which he determined the rate of both heat production and heat dissipation with the actual temperature of the animal for six consecutive hours after the administration of a given quantity of alcohol proportioned to the weight of the animal.

In sixteen of the eighteen experiments the average heat dissipation exceeded the heat production and the temperature was lowered; in only two was a reverse result obtained. In thirteen of the eighteen experiments the average heat production was diminished, while in the other five it was increased. In all but two of the experiments the average heat dissipation was also diminished, in a less ratio, however, than the diminution of heat production, and the actual resulting temperature of the animal was lowered. Dr. Reichert, during these very valuable experiments, took no note of the variations in the production of carbon-dioxide, but the aggregate results of both experimental and clinical observations during the last half century sufficiently demonstrate the fact that the production of carbon-dioxide, urea, phosphates, and nearly all other ex-



cretory products of metabolism or retrograde metamorphosis, and the consumption of oxygen, are diminished by the presence of alcohol in the blood.

The suggestion of Dr. Reichert and many others, that the alcohol while undergoing actual oxidation in the blood, producing both heat and carbon-dioxide, with consumption of oxygen, simultaneously diminishes the metabolism of the tissues so much that the production of both heat and carbon-dioxide from that source is so far diminished as to balance, or more than balance, the increase of these by the direct oxidation of the alcohol, does not afford a satisfactory explanation.

If, as has been demonstrated, one-tenth or more of the alcohol taken into the blood *immediately* disappears, and such disappearance is caused by an equally sudden oxidation, the increased quantity of heat and carbon-dioxide thus liberated could not escape ready detection before it could be counterbalanced either by diminished heat production from retarded tissue metabolism, or from increased heat dissipation.

And yet, neither the aggregate results of the numerous and varied experiments, nor of the abundant clinical observations, show any such primary marked increase in either the consumption of oxygen or increase of carbon-dioxide and heat. That when alcohol enters the blood diluted with water it rapidly disappears or loses its identity, there is no reason to doubt. That while present and circulating with the blood it diminishes nerve sensibility and force, lessens the average temperature, retards metabolism or molecular changes in the tissues, and lessens the aggregate of effete eliminations, is equally certain. How it disappears—what new combinations it enters into by which its identity as alcohol is lost—and how it modifies nearly all the processes and functions of the living system, are questions of the greatest importance. The element or idea that has hitherto vitiated nearly all the reasoning and deductions from the numerous clearly established facts developed by the investi-

gations has been the purely theoretical assumption that alcohol, being a pure hydrocarbon, could undergo no change or combination in the laboratory of the living body save that of oxidation or combustion and the evolution of heat or some kind of force. Under the influence of this primary assumption each chemico-physiological investigator, though acknowledging that the presence of alcohol in the blood actually diminishes nerve force, muscular force, metabolic force, heat force, and the ordinary products of oxidation, still returns to the theoretical idea that, inasmuch as the alcohol disappears in the system, "it must undergo oxidation and evolve some kind of force." The well-known fact that alcohol possesses a strong affinity for the water and albumen of the living tissues and for the hæmoglobin and corpuscular elements of the blood, and is capable of exerting a modifying influence on the molecular condition of all these elements, seems to have received far less attention than its importance demands.

Dr. B. W. Richardson, of London, first pointed out the fact that the presence of alcohol in the blood caused alterations in the appearance of the corpuscles, causing them to become corrugated to some extent, and more disposed to adhere together.

Dr. George Harley further showed that the addition of 10 per cent. of alcohol to fresh arterial blood changed its colour, prevented its re-oxygenation and destroyed its power of producing hemin crystals. The addition of 5 per cent. did not materially change the colour, but it completely destroyed the capacity of the corpuscles for further oxygenation or purposes of nutrition.

Dr. Joseph Frank Payne, Vice-President of the London Pathological Society, in opening an important discussion of the subject by that body in January, 1889, stated that alcohol, when taken internally, not only speedily produced derangements of the nervous functions, but also acted directly on the tissue elements, "(1) as a functional poison, (2) as a tissue poison or destructive, (3) as a checker

of oxidation." And when its action becomes persistent, or chronic, it results in hyperplasia of connective tissue, fibroid changes, fatty and tuberculous degenerations, and fatty infiltrations in almost every tissue and organ in the body. Both Dr. Payne and Dr. Lionel Beale presented microscopical sections of a liver changed by chronic alcoholism, showing not only hyperplasia of connective tissue, but also essential atrophy of the liver cells. For the purpose of gaining more knowledge concerning the action of alcohol on the hæmoglobin, and its relation to the oxygen of the blood, Dr. John D. Kales, Demonstrator of Histology in the laboratories of the medical department of the Northwestern University (Chicago Medical College), executed a series of observations with the spectroscope and microscope on blood drawn by hypodermic syringe from the heart of living rabbits and mixed with alcohol in varying proportions, from 1 to 10 per cent. of the latter. He found that when absolute alcohol in varying quantities, from 1 to 5 per cent., was mixed with the freshly drawn blood diluted with distilled water, it made no perceptible change in the oxyhæmoglobin spectral bands at ordinary atmospheric pressure and a temperature of 98° F. Neither was there any evidence of oxidation of the alcohol. But when the pressure was diminished by means of the air-pump to the extent of 710 millimetres of mercury the hæmoglobin was rapidly reduced by surrendering its oxygen, which did not combine with the elements of the alcohol present, but escaped in a free state. It was further shown that the rapidity of the reduction of the hæmoglobin increased by increasing the proportion of alcohol used. Also, when the oxyhæmoglobin was reduced in contact with the alcohol, it was less capable of re-oxygenation than when reduced without the presence of the alcohol.

As the experiments of Dr. Kales constitute an interesting item of original work, I take the liberty to append his own concise report of the same to this address.

In view of all the foregoing facts I feel justified in considering the following propositions fairly established :

1. Alcohol, when present in the blood, either combines with or causes changes in the molecular composition of the hæmoglobin, by which the natural conversion of the latter into oxyhæmoglobin is diminished, and consequently less oxygen is carried from the pulmonary to the systemic capillaries.

2. The same strong affinity of the alcohol for water and albuminoids that enables it to modify the composition and function of the hæmoglobin of the blood, also causes it to modify the molecular condition and functions of the tissue cells throughout the body, and thereby retard or lessen the aggregate of metabolic changes and their products, as shown in the diminished product of carbon-dioxide, urea, phosphates, heat, &c.

3. Both the direct effect of the alcohol on the nerve cells, and its indirect effect in lessening the amount of oxygenation of the blood, causes it to produce marked diminution of nerve sensibility and vaso-motor nerve force; or, in other words, a true anæsthetic effect upon the nerve centres.

4. It follows as a necessary conclusion from the three preceding propositions that, instead of generating any kind or form of force or energy, alcohol in the blood actually diminishes every known form of force belonging to the living body; and instead of conserving the tissues, it diminishes and prevents the metabolic changes, and thereby promotes both molecular and tissue degenerations, as so uniformly seen resulting from chronic alcoholism.

Like antipyrin and other members of the group of antipyretics on which I have ventured to comment, the alcohol acts directly on the corpuscular elements of the blood, and so far diminishes the molecular tissue movements of nutrition and disintegration as to lessen heat production and favour tissue generation, while its action on the nerve structures is more in the direction of an anæsthetic than of an analgesic.

And hence like them, if administered in acute general diseases, by its anæsthetic properties it quiets the patient's restlessness, lessens his consciousness of suffering, and diminishes vaso-motor and excito-motor nerve force, with moderate reduction of temperature; while by its direct diminution of tissue metabolism and excretory products it favours the retention in the system of both the specific causes of disease and the natural excretory materials that should have been eliminated. And though the immediate effect is to give the patient an appearance of more comfort, the continued retention of the morbid cause, the diminished action of the excretory structures, and the diminution of oxyhæmoglobin, all serve to protract the disease and increase molecular and tissue degeneration and add to the number of fatal results.

I am well aware that the foregoing practical deductions, founded on the results of numerous and varied experimental researches and well-known physiological laws, are in direct conflict with the very generally accepted doctrine that alcohol is a cardiac tonic, capable of increasing the force and efficiency of the circulation, and of conserving the normal living tissues, and, therefore, of decided value, especially in all the lower grades of general fever. But on what series of well established facts does this "very generally accepted doctrine" rest? Certainly not on any resulting from direct experiments on either animals or man in health, for all these result in showing depression of the vaso-motor and heat centres of the brain, and impairment of cardiac force in direct proportion to the quantity of alcohol in the blood. (See experiments of Drs. Martin, Ringer and Sainsbury, Reichert, and others.) Many of you are doubtless ready to say that it rests on a broad basis of direct clinical experience; but reliable results from clinical experience in the use of a remedy in the treatment of any disease can only be gained by comparing the results of an adequate number of cases in which it was used, with the results of a like number of parallel cases treated in the same

manner, except with the remedy omitted. The nearest approach to such a basis for comparison that is found on record is furnished in the reports of hospital and private practice for a given period, where in certain acute general diseases alcoholic remedies were either not given or used very sparingly, and before the recent antipyretics were manufactured; and similar reports for an equal period of time when in the same diseases the antipyretics and alcoholics were freely used. The treatment of typhoid fever and pneumonia, two clearly defined acute diseases of great importance and familiar to all general practitioners, will serve the purposes of my inquiry.

As Dr. George B. Wood, in his well-known work on the Practice of Medicine, recommended the use of alcoholic remedies only in the last stages of typhoid fever, and then chiefly in the form of wine-whey made from 1 part of sherry wine and 2 parts of milk, given in tablespoonful doses, his results may be fairly placed on the side of non-alcoholic treatment. He has stated that of the whole number of cases treated by him in the Pennsylvania Hospital from 1850 to 1854, less than 6 per cent., or one in seventeen, died. A more marked and complete experiment was made when, in 1864, the Commissioners of Public Charity of New York City were induced, on account of the great mortality of fever patients in the Bellevue Hospital, and also for better isolation, to commence sending the typhus fever patients to Blackwell's Island, where they were placed in canvas tents under the immediate charge of Dr. A. L. Loomis. At the end of nine months the average number constantly under treatment had been seventy, or about 600 in all. Their treatment had been exclusively hygienic, consisting of ample ventilation, good air, cleanliness, and simple nourishment. No medicines and no alcoholic stimulants were used. The result was one death in seventeen cases, or only 6 per cent. (See letter of New York Correspondent in *Chicago Medical Examiner*, Vol. vi., p. 79). In 1869, the present large building was erected to accommodate



the Mercy Hospital, of Chicago. With the exception of one year, I had continuous charge of the medical wards, including rather more than half of the typhoid and other fever patients, from that time until 1886; and since the last date Dr. N. S. Davis, Jun., has divided the time with me. During these twenty years the number of typhoid fever patients admitted and treated in the wards under my charge annually, has varied from thirty to 100, making a total of more than 1,000 cases. Much the larger proportion were from the class of common labourers, and they seldom reached the hospital until in the second week in the progress of the disease, and a considerable number not until in the third week. During this whole period of time, the use of alcoholic remedies, both fermented and distilled, has been rigidly avoided in the treatment of this class of patients. The administration of the most popular internal antipyretics, antipyrin and antifebrin, was commenced by my colleague in charge of the wards, and given a fair trial during the last three years. But the cases so treated resulted in so decided an increase in the ratio of mortality, that he abandoned their use in the treatment of this variety of fever. The actual ratio of mortality for the whole number of cases treated during the twenty years was 5 per cent., or one in twenty cases; the highest ratio in any one year being one in fifteen, and the lowest one in thirty.

On the other hand, nearly all the reports from the principal hospitals, both of Europe and this country, in which alcoholic liquors are freely used in the treatment of typhoid and typhus fevers, the ratio of mortality is given at from 16 to 25 per cent., or one death in from four to seven cases.

As examples, during the three years immediately preceding the sending of typhus patients to the tents on Blackwell's Island in 1864, 908 cases had been admitted into Bellevue Hospital and treated by a liberal administration of alcoholic remedies, chiefly brandy, whisky and wines, resulting in 198 deaths, or one in four and one-half. By eliminating the number who died

within forty-eight hours after admission as not really subjects of treatment, the real ratio of mortality was about one in six.

From a paper read by E. T. Edgerly, M.D., before the Clinical Society of Cook County Hospital, Chicago, February 6, 1890, we learn that 161 cases of typhoid fever had been treated in the regular medical wards of that hospital during the year 1889, of whom 110 were males, and fifty-one females. Among the remedies usually used were mentioned antipyrin and antifebrin as antipyretics, and alcohol as a stimulant. The number of deaths was twenty-seven, or one in six cases. *i.e.*, about the same as obtained in Bellevue twenty years before the internal antipyretics had been manufactured.

The official annual report of the Cincinnati Hospital for the year 1886, states that forty-seven cases of typhoid fever were treated during the year, of which seven died, or one in 6.7. In the report of the Garfield Memorial Hospital at Washington for the year 1889, the number of typhoid fever patients admitted is stated at twenty-two, of whom five died, or one in 4.4.

The foregoing clinical statistics are sufficient to show that the ordinary use of alcoholics and the more recent internal antipyretic remedies in the treatment of typhoid fever pretty uniformly results in one death for every four to seven cases treated; while cases of the same fever treated without any use of these remedies result in only one death for every seventeen to twenty cases.

So far as I have been able to gather reliable clinical data for comparing the results of the treatment of pneumonia, or as it is more generally called pneumonic fever, by the very general use of antipyrin, antifebrin, &c., for controlling the high temperature, and alcoholic liquors as cardiac tonics, with cases of the same disease treated without the use of any of these remedies, they show equally striking and important differences. Thus, the *Medical News*, of Philadelphia, December 11, 1886, stated that "the ratio of mortality from pneumonia in the large general hospitals of this country is



rarely below, more often above, 25 per cent." In the Pennsylvania Hospital during the years 1884-85-86, the number of cases of pneumonia treated was eighty-eight, with thirty deaths, or 34 per cent. In the same hospital during the years 1845-46-47, the number treated was twenty-five, with four deaths, or 16 per cent.; less than half the ratio of the recent period (Osler).

The statistics of 1,000 cases of lobar pneumonia treated in the Massachusetts General Hospital, Boston, from 1822 to 1889, as compiled by Drs. C. W. Townsend and A. Corlidge, Jun., give an average mortality for the whole period of 25 per cent. But dividing the time into decennial periods, they state that "the mortality has gradually increased from 10 per cent. in the first decade to 28 per cent. in the present decade." In the annual report of the Supervising Surgeon-General of the U. S. Marine-Hospital Service for 1888, it is stated that the whole number of cases of pneumonia treated in the several Marine-Hospitals, under that Service, from 1880 to 1887, inclusive, was 1,649, of which 311 died, or 18.8 per cent.

In the Cincinnati Hospital report for 1886, the number of cases of lobar pneumonia treated is stated at forty-two, of which sixteen died, or 38 per cent. Dr. Ludwig Hektoen reports, as treated in the Cook County Hospital, Chicago, during 1889, of lobar pneumonia seventy-six cases and of lobular pneumonia four cases—total, eighty cases, of which twenty-nine died, or 36 per cent. Dr. C. W. McIntyre, house physician, reports fourteen cases of pneumonia treated in my half of the medical wards of the Mercy Hospital, Chicago, during the year 1889, of which one died. In the same wards of that hospital during the last ten years, the average ratio of deaths from pneumonia has been about 12 per cent. No alcoholic and very little internal antipyretic remedies have been used in the treatment.

I am well aware that the foregoing fragmentary statistics in regard to both typhoid fever and pneumonia, afford no adequate or reliable basis for determining the value of different

modes of treating these important diseases; and I have cited them for no such purpose. But I have simply copied them from such sources as were at hand, to show, first, that the very general use of the complex artificially formed antipyretics (antipyrin, etc.), in the treatment of continued fevers, including pneumonia, in addition to the liberal use of alcoholic (so-called) stimulants, has not been accompanied by any decrease in the ratio of mortality or in the duration of these diseases. On the contrary, so far as they show any change it is in the direction of increase in both particulars. And second, so far as they include results obtained by treating many cases of the same forms of disease without any use of the remedies named, the ratio of mortality has been reduced in so marked a degree, as to force the conviction that their use in the treatment would have been positively injurious. Consequently our appeal from the clearly established deductions from direct experiments concerning the physiological and pathological action of the remedies under consideration to the domain of clinical experience in their use shows, instead of conflict, entire harmony in the results.

Mere theoretical opinions have ever exerted a dominating, and often an injurious, influence over the administration of remedies in the treatment of disease; and the present decade of time shows no exception to this rule.

The theoretical dogma that all disease consisted in primary irritation, and the maxim, *ubi irritatio ubi fluxus*, that led, during the last part of the last century, to the rigid antiphlogistic system of treatment, with bleeding, evacuations and low diet for its basis, was not enforced with more magisterial authority for the greater part of the first half of the present century—or until it was overthrown by its own excesses—than did the equally theoretical assumption following it, that all disease is debility or diminution of life (Chambers), and all acute diseases must run their course, establish and enforce the practice of supporting the patient by food and so-called stimu-

lants until the disease had completed its course which still holds sway, though being rapidly undermined by the recent antipyretic theories and the still more recent discoveries in etiology, relating to specific causes and specific remedies. Therefore, to-day, we are still endeavouring to support our patients with food, fresh air, and alcoholics; while we combat the pyrexia, and attempt to nullify the specific causes, with larger and more dangerous doses of medicine than were given in the most heroic period of the antiphlogistic system. In other words, while we are, with great propriety, insisting that our fever patients must have proper food and the most free access to pure air, we are giving them such doses of alcohol and internal antipyretics as directly diminish the capacity of the hæmoglobin to use the air, and so far diminish the metabolic tissue changes as to retard the normal appropriation of the food, while they equally depress the vaso-motor and respiratory nerve functions. Need we be surprised, therefore, that the results show an increasing rather than a decreasing mortality? The fundamental error consists in using special remedies for the control of particular symptoms, or the removal of specific causes, without an adequate knowledge of their influence on the blood and the various processes and functions of the living body.

If we would reach the highest degree of success in the treatment of acute general diseases, we must keep distinctly in mind the following propositions. 1. We must as early as practicable separate the patient from the further action of both the specific and predisposing causes of his disease by surrounding him with pure air, and as perfect sanitary conditions as possible; and as the living animal system uniformly tends to either destroy or eliminate the specific morbid causes by its own metabolic changes, we should carefully avoid the use of such remedies as either directly or indirectly retard or prevent such normal metabolic processes, even for the repression of one or more prominent symptoms. On the contrary, we must use such

general alterative and antiseptic remedies as are known to sustain and correct such processes, and thereby aid in hastening the destruction or elimination of the disturbing *materies morbi*, whether they consist of living germs, chemical promaines or leucomaines, or only excretory matters abnormally retained in the system.

2. As the pyrexia or high temperature results mostly from interference with the processes of heat dissipation, especially in the ordinary continued fevers, we must further aid in restoring these processes by gently promoting natural elimination and the direct abstraction of heat by sponge baths, and in excessive case by wrapping in the cold wet sheet, all of which exert a restorative influence on the vaso-motor, cardiac, and respiratory nerve centres, while, with equal care, we avoid administering such doses of internal antipyretics and alcoholics as diminish heat production by retarding both blood and tissue metabolism, and equally depress nerve sensibility and force.

3. Again, as every specific cause capable of producing the complex assemblage of morbid phenomena that constitute a general fever, has displayed a tendency to induce special local morbid conditions in some one or more of the important tissues or organs during the progress of the general disease, as in the glands of the ilium, mesentery and spleen in typhoid; the stomach, duodenum and liver in periodical and yellow fevers, &c., we must early and accurately use such remedies as palliate or modify these local developments wherever they may be manifested, and thereby prevent such structural changes in these directions as might otherwise end in fatal exhaustion.

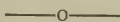
4. Finally, as all acute morbid processes, when established, are progressive through the successive stages of increase, culmination and decline or destruction of the patient, we must carefully adjust both our remedial agents and nutrient materials to the actual stage of progress of the disease and the capacity of the patient to receive and appropriate the same;

ever remembering that the same remedial agent that might be of great value in the first stage, might be injurious or even destructive if used at the stage of culmination, or still more in that of decline. Hence specific remedies for acute general diseases can be rationally or successfully used only when aimed at the destruction or elimination of the specific causes and in the first stage of the morbid processes. Indeed, the chief benefits thus far derived from the use of antiseptics and germicides, have been as preventives in the incubative and prodromic stages, rather than as curatives after active morbid processes have become manifest.

It required much careful clinical observation, aided by some analytical and experimental work, during the first thirteen years of my professional life, to gain a clear comprehension of the foregoing general propositions or indications for the management of acute general diseases, but they have served as my general guide during the forty years of constant practice that have intervened since; and with results that have neither diminished my faith in the efficacy of remedial agents

when properly used, nor the confidence of the community in which I have continuously lived and practised the healing art. I do not desire to be understood as persistently using the same remedial agents all these last forty years; but I do mean that the correct principles or indications for the treatment of the different stages of any given disease have remained and always will remain the same; while our choice of individual remedial agents for fulfilling those indications may be influenced by every addition to our knowledge of etiology, materia medica and therapeutics.

If the foregoing review of some of the most important items presented in the field of the practical medicine of the present time, should lead you, or any considerable number in the profession, to a closer study and thereby a clearer understanding of the real *modus operandi* of the remedial agents used in the treatment of acute general diseases, I shall be amply repaid for my time and labour, and you will cheerfully excuse me for having trespassed upon your time so long.—  
*Journal of the American Medical Association.*



## THE BRITISH MEDICAL ASSOCIATION IN BIRMINGHAM.

### TEMPERANCE BREAKFAST.

#### ADDRESS BY THE BISHOP OF LONDON.

IN connection with the meetings of the British Medical Association in Birmingham, an invitation to breakfast on Wednesday morning, July 30, at the Masonic Hall, New Street, was given to the members of the Association by the National Temperance League. The Rt. Hon. and Right Rev. the Lord Bishop of London (Dr. Temple), president of the National Temperance League, was in the chair, and among those present were Mr. John Taylor (chairman of the Committee), Alderman White, Alderman Barrow (Deputy Mayor of Birmingham), the Rev. W. B. Wilkinson (Birmingham), Miss Annie E. Clark, M.D. (Birmingham), Miss Edith

Shove, M.B., and a large number of medical gentlemen.

The Right Rev. CHAIRMAN, at the conclusion of the breakfast, said: Gentlemen, my business, of course, in the first place is to express a very cordial, hearty welcome to the guests who have honoured us with their company this morning, and especially to the members of the great British Medical Association, and to say what very great pleasure we have in meeting with them on such an occasion as this, and in putting before them the pleas that we have to make for the thorough consideration of our case. It is not, of course, the first time that we have asked the medical men to



take this matter into consideration, and as long as the medical men are willing to come and hear us at all it will not be the last time, because we are very much in earnest about the matter. Of course it is not possible for any man to address a number of scientific men who have studied what he himself has not studied, without a considerable amount of diffidence, and without some apprehension that perhaps, now and then, he may say things which the listeners will rather smile at. It is possible of course, that any one of us may, in approaching such a subject as this, and in endeavouring to look at the matter from the medical point of view, be not very successful in hitting the precise kind of arguments that medical men would think worthy of consideration at all. But nevertheless we have a good deal to say for ourselves, and I think the most striking thing that we have to put before you is the fact that there are a very considerable number of medical men who are ready to take our view, and it is therefore obvious that the proposal that we should encourage total abstinents as much as possible is not anything so ridiculous and absurd that it ought to be dismissed without a moment's consideration. There are a very large number of medical men who are ready—I don't mean the majority, I don't believe they are the majority—but a very large number who already go quite as far as any teetotaler that I know in advocating the avoidance of intoxicating liquors altogether. But we wish to press upon you certain considerations which strike very forcibly upon us. Now, in the first place, it is natural for me to wish to put before all medical considerations the moral consideration. On such a question as this I am perfectly well aware that any medical man has a right to say to me, "My business is not morals, my business is the healing of the body. I am to cure diseases wherever I meet with them in the most effectual manner that I possibly can, and it will merely make confusion if I mix up with such considerations as belong to medical science other

considerations with which medical science has nothing to do." It is obvious that that may be said, and at first sight it appears to have a great deal of force in it. But in answer to that I would plead that there is nothing so complicated as the humanity with which both I—on the moral and spiritual side—and the medical profession on the corporeal side have to deal, and that you cannot make this sort of division between what belongs to the body and what belongs to the soul. You cannot, because they are perpetually playing the one upon the other, and the medical man has every now and then to deal with questions which are distinctly within his province, and which, nevertheless, are also very distinctly within the province of the minister of the Gospel. The medical man has very often to handle all sorts of moral questions, for instance in the treatment of those who are in any way whatever affected in the brain or in the nervous system. We know very well that medical men are constantly giving us advice to do, or not to do, things which distinctly touch upon morals, and that they are constantly giving us advice on the ground that such and such practices, such and such indulgences, such and such habits, have a very considerable effect upon the health, and that, therefore, it is their province to speak of them. Well, it seems to me very clear that, when once you have in this way broken down the sort of bar which at first sight seems to separate moral and medical questions, you have, of necessity, let in the whole moral side of all treatment of mankind, and admitted it to be a part, not a primary part, but a part, of the matter which the medical man has to consider. When you are dealing with a man you cannot exclude from consideration the fact that whatever drugs you may give him may possibly have a very considerable effect upon his mind, any more than you can exclude the fact that whatever happens to his mind and to his soul and affects his moral character will, in thousands of cases, have a very considerable effect



upon his bodily health. And, therefore, we urge that it is of importance for medical men to consider that, in dealing with patients on whom they are conferring the greatest blessing that can belong to this present life, the blessing of health, that in dealing with these patients they should be constantly bearing in mind that it is possible for them to do a moral mischief. We cannot help feeling that if a medical man in curing one disease sows the seeds of another disease, he is assuredly doing what is contrary to the principles of his own profession. And in very many cases, it is admitted on all hands that inebriety is a real disease—is as much a disease as almost any other disease that you can name. Although it may have its springs in a particular kind of conduct, yet when once it is established it is so completely a disease that you can trace the progress of it, and you can mark the symptoms of it. And I observe constantly, when medical men are speaking or writing about these things, that they include moral symptoms among the other symptoms which are the usual outcome of such a disease as this. I am told, for instance, that it is a well-known fact that at a certain stage you cannot trust the drunkard's word—he cannot tell the truth, he has a kind of physical inability to keep to strict truth—and that it is a marked symptom when the disease has gone a certain length. You come then to a point at which this moral is, as it were, the necessary result of the physical mischief that has been going on in his brain and nervous system. Well, is it right to run any risk of introducing into a man's system that which may end in a disease of this kind? Some years back I had occasion to remonstrate with a medical man because in a certain case he prescribed wine to a servant whom I knew. I knew the girl very well, and from what I knew of her family I thought it was an exceedingly dangerous thing to prescribe. He said to me, "My business is to heal this girl in the quickest way I can. What she is suffering from will be more

rapidly removed by the use of a little wine than by anything else, and therefore I give her a little wine." And I said to him, "It is very likely that that will be the case, but I suppose that is not the only thing you can give the girl to cure her?" He replied, "Certainly, it is not the only thing, but certainly it is the speediest thing." "But," I said, "I happen to know the girl, and I know her family pretty well, and I am afraid that there is in her an hereditary predisposition to inebriety;" and he said, "Well, I don't know, of course. It may possibly give you some alarm, but as far as I can judge the best thing that I can do for her is to give her the wine." I could not, of course, do any more. I could not interfere in the matter, as the case was in his hands; but the poor girl after this had been continued for a little while, about three months, became addicted to drunkenness, and was very intemperate. She recovered herself afterwards. She was laid hold of by the temperance society in the place, and having taken the pledge, she entirely recovered. But I could not help feeling that there the medical man had done a very real mischief. I do not believe he intended to do mischief, nor do I even mean that he was careless about doing the mischief, but that in his view all this was kept completely out of sight—this was not to be considered. Well, I do not think that in such a case as that he was quite right, and I think that the same principle will apply very widely indeed. Now, I am not one of those who are prepared to maintain that the use of intoxicants in medicine is wrong always. I have not the least doubt that there are cases in which a drug so powerful as alcohol may be of very great use indeed, although I myself certainly should hold that if any medicine in the world should be nasty—which a great many medicines are—we ought to take care that alcohol whenever it is administered should be pre-eminently nasty. Though I rather lean to that view, yet I am not even prepared to hold to that in extreme cases. There may be cases where it

is quite right not only that the alcohol should be given, but that it should be given in a very attractive form. I do not say it should never be used. On the contrary, I am certain from what I have seen in various ways that there are extreme cases in which you do want it, but certainly the evidence which comes before us in ordinary life points in the direction of a very great caution in the administration of so powerful a drug, and a drug which appears to have so very often indeed the most mischievous moral consequences. This is the first thing that I wish to put before the medical profession, that there is a duty lying upon a medical man to look at the moral consequences of the administration of such a drug as this. Then, in the next place, I will go one step further, and say that evidence seems to increase upon us that, taking it altogether, total abstinence from intoxicating liquors is a more healthy kind of life than even the moderate use of them. I was not always a total abstainer, and at times I used to join with others in the use of intoxicating liquors. I don't ever remember having even approached the confines of inebriety, nor do I remember even having come near the condition of men who cannot control themselves in what they say and cannot trust their excited appetites as to the quantity they shall drink. And, further, I cannot go along with some of my total-abstaining friends who urge that if you have taken a glass of wine you instantly want another, and that having taken that you instantly want a third—that the desire goes on increasing, and that the more you drink, the more you want to drink. I have no doubt that there are persons upon whom drink has this effect, but I have not experienced that effect in my own person. I have never exceeded four glasses of wine in the course of the day, and I have never felt when I had had one glass of wine that there was a greater desire for the second, but rather the contrary. When I had had the four glasses I did not care for any more—I did not feel at all desirous of more. Well, without going such lengths as these—which, although, I

think they are beyond the limits of actual fact, nevertheless have a good deal of justification for themselves in the very large number of cases in which these things are true, but without going so far as that, I think that the evidence does point very strongly to a belief that total abstinence is, on the whole, the healthiest kind of life. And of this evidence we certainly have a very considerable amount in the statistics of the insurance societies where the total abstainers are distinguished from the others. We have also a very considerable amount of evidence in the statistics of friendly societies, such as the Rechabites, and the like, and we have a very large number of total abstainers who declare that they themselves are really the better for their total abstinence. I think that this is a matter which deserves the consideration of the medical profession, and I must venture to say that I think it deserves more consideration than it has yet received. I was very much struck, not long ago, in talking to a physician of some eminence, to find that he had never heard of these statistics of the insurance societies. I told him of the evidence supplied by these societies and he said, "This is entirely new to me, and I should like to know what insurance offices there are who take this line and produce this evidence." And he was very considerably astonished when the evidence was put before him, and he said that he would look into it. A thing of that sort, it seems to me, ought to be thoroughly examined by all medical men without exception, because they are dealing with a very serious matter indeed. And so, on the medical side as well as on the moral side, I think we have a right to plead with the medical profession to look with perpetual care and perpetual vigilance to this matter. And I venture to go on to put aside both the moral and the medical questions altogether, and to ask you to consider the whole thing from an independent standpoint, from the patriotic point of view. Is there one thing more than another that hurts this country in the same degree as the use of intoxicating liquors? It cannot

be denied that an enormous proportion of crime and of pauperism, and of insanity, and a very large proportion of disease, comes from this one source. It cannot be denied that it seriously complicates all our dealings with the great mass of those who live by manual labour. How difficult it is to handle all the problems which are perpetually coming before us in dealing with those who are, as it were, at the lower end of the social scale, and who are constantly appealing to us who have education, and have the advantages of education, and to those of us who have any wealth at command, to help them to rise out of the kind of slough of misery and degradation into which so many of them have sunk. They demand that their case may be considered, and plead that they ought to have better homes, that they ought to have more comfortable homes, and so on. Well, in all these cases is it not obvious to every man of common sense that if you are to raise the condition of the poor in any way, you can only do it by their co-operation? You cannot raise any class of people in the world if they obstinately refuse to be raised. If they will not take any share in the work, if they will not try to lift themselves, you cannot lift them. It is out of the question to say to any class in society, "We will lift you up in spite of yourselves and make you far more comfortable than you are." And what is it that we want? We want that kind of self-control, that kind of personal endeavour to raise themselves, which is the essential condition of their being in any way better in one year than they were in another. What is the very first thing that stands in the way of this? The very first thing we have to contend with is their intemperance. There can be no question at all that what drags them down is their intemperance more than anything else. And these things act and re-act upon one another. You say that they ought to be more comfortably housed. Why are they not more comfortably housed? Because they cannot afford it. And why cannot they afford it? Because they waste such an enormous amount of

their wages in drink, and because, besides wasting their wages in drink, they waste also their power to labour in drink. And, therefore, at both ends they are burning the candle and it is inevitable that they will sink lower and lower. I do not mean to say that this is the only thing that drags them down, but it is the most potent thing that drags them down. Ought we not, then, as Englishmen, to look at the matter from that side, and as Englishmen ought we not to endeavour if we possibly can to save our fellow-countrymen from such a curse as this is? If we feel at all for those who are less able to maintain themselves in the world, ought we not to make our utmost endeavour to help them to get rid of what is after all by universal concession, their chief foe? It seems to me that, independently of any profession, whether we are appealing to the medical profession or to the ministry of the Gospel of Christ, or whether you have no profession at all and are simply an Englishman and amongst Englishmen, there is hardly any cause which more imperatively demands that everybody that can take a part in fighting with this fearful enemy ought to be ready to give all his powers towards so important a battle as this. I have said these few words in the desire to appeal to all those who are present to take their part in what I believe to be one of the most important services that man can render to man; that Englishmen can render to Englishmen, that a Christian can render to his Lord and Saviour.

Dr. G. WILLIS, J.P. (Monmouth)

said that he thought it was the duty of medical men to set a good example. Of all men in the world a medical man ought to be, at all events, slightly sober, and a doctor, in dealing with a drinking public, should be able to say, "I set an example of not drinking." They preached temperance, but unless they were prepared to say that they could live without alcohol he was afraid they would not very much improve their position. Certainly no medical man should set an example of anything approaching inebriety, but he found



himself best able to deal with the physical and moral evils of drink by being a total abstainer.

Dr. M. CAMERON (Glasgow) said that he did not know how many of those present were members of the Medical Temperance Association. To those who were not he would say, "You are not doing your duty either to yourselves or to the nation unless you become a member." With regard to total abstinence, their first duty was to themselves. He thought that no doctor present would object to pass him for any society or insurance office. They might like to know what it was to which the credit was due for his healthy looks. Well, it was not beer or Scotch whisky, for neither of them had anything to do with it. He was a lifelong abstainer. He relied more upon Scotch porridge than upon any other stuff, and he certainly had no reliance upon sugar and dirty water. As he came along that morning he heard medical men talking about various text-books, and the remark was made, "Oh, so-and-so is out of date." Now, he did not see how medical men could go on in practice if they were entirely ignorant of the temperance question and had not read the literature on temperance. He considered that a medical man who could confess himself ignorant of the statistics the President had referred to was decidedly out of date. Then with regard to their patients. He once had a patient—he was afraid there were a great many in the same position—who was in the condition described by their Scotch bard—

"I wasna' fou, but just had plenty;  
I stacher'd whiles, but yet took tent aye  
To free the ditches."

He said to this patient, "You are looking ill, and you must not have the drink." The patient tried every conceivable way of dodging it, and at last he said, "There is another doctor who ordered me to take it." He replied, "When I prescribe a certain medicine to a patient, and it produces certain symptoms that don't agree with my patient, I discontinue it altogether. I advise you to go to that medical man

and see if he intended that this prescription should have this effect. Who is the doctor?" The patient gave the name of a man who had been seven years in his grave, and the patient had been all that time taking his prescription. He did not think that with regard to any other medicine they would find their patients so obedient as that. He was afraid that there were not many of them who, when prescribed intoxicating liquors, were like the little boy who was sent to the druggist for a pennyworth of castor-oil, and who said, "Please, sir, don't give me too much, because it is so nasty to take." In his hospital practice, and he had charge of 2,000 cases every year, he never dreamed of prescribing alcoholic stimulant in any form, and they had as good results in Glasgow as they had in any city in the kingdom. He would not accept the responsibility of prescribing alcoholic liquors, knowing as he did that most of the women who had become drunkards had done so after they had become mothers. Nursing and struggling with their families gave them a craving which very often got beyond control, and then nothing could be done for them except by entire seclusion. But one could not take a mother from her family for two years, and less than two years was of little avail in a case of that kind. The President spoke about drink not setting up a craving, and said that inebriety was a disease. Well, if it were not a disease he (Dr. Cameron) did not know what it was. When he left that hall he should have no desire for any other drink. But he saw men go into public-houses and into hotels, and they had a drink at one place, and then they went a bit further and had a drink at another, and so they went on, drink, drink, drink all day. In Scotland, when people went out for a holiday, they began to drink as soon as they got on board the steamer, they drank when they got out, and drank when they got back, and next morning they wanted a drink before they could go out again. If people's will were their own, a man might take one glass and no more. But after the first glass a man's will



was no more his own than were his legs. An oculist would tell them that a man's eyes were disturbed after a glass of drink, and anyone could see that his legs were weaker. So whenever a man had taken even a single glass of stimulant his will was no longer the same will as he had before he began to drink—it was a weaker will just as his legs were weaker—and the will that might be strong enough to resist the first glass would not be able to resist the second. He had seen as good men as any that were in that room go down in that way, men who loved their wives sincerely, and who had given a sacred promise intending to keep it; but though they had meant to go home, it was certain if they had one glass they would not go home. He had known medical men—and in a matter of this kind they should be stronger than others—who, if they had one glass, could not keep sober. He had seen patients who had been total abstainers for fifteen years become drunkards through the prescription of their medical man. He strongly urged medical men to consider whether they were doing their duty to their patients in prescribing this thing blindly. They carefully measured out all their other poisons, but this one they left in the patient's hands.

DR. NORMAN KERR,

on behalf of Mr. F. J. Gray, of Walsall, invited the members of the British Medical Association to visit the retreat of inebriates near Walsall. Referring to the circumstances of that meeting Dr. Kerr said that that breakfast under the Bishop of London's presidency was a splendid beginning for the sectional proceedings of the Association. There was not only a union of hands and of hearts to be found there, but also a union of two great professions, whose office it was to benefit body and soul of the humanity around them. With regard to those cases in which he was specially interested professionally, he would say that if he were an atheist—which, thank God, he was not—he would be compelled professionally to say that in the treatment of every case of inebriety, in addition

to giving an absolute prescription for the teetotal discontinuance of alcoholic intoxicants, and of every other stimulant or narcotic of any kind—opiates or anything else—he should ask the assistance of a member of his lordship's profession to confirm the patient in his resistance to the temptation against which he had to struggle. He believed that in promoting the cure of such a case, religious influences, or moral influences—whichever name they liked to give them—were absolutely necessary as a part of the medical treatment of the disease of inebriety. And not only in the disease of inebriety but in the disease of insanity the cure was very often greatly promoted by moral and religious influences. In curing all these diseases the patient had to persist in the proper remedies and the proper *régime*, and to get him to do this they must bring all the moral and religious influences they could to bear upon him. Having referred to the difficulties in the way of proper treatment resulting from the social use of intoxicating liquors, Dr. Kerr pointed out that the joint verdict of both branches of the therapeutic art was given in favour of total abstinence as the healthier rule of life, healthier even than moderation. What else did they want in regard to this great question? Suppose that by becoming total abstainers they could assist to destroy this great evil which was doing so vast an injury to their country, and that, in doing so, a man ran the risk of knocking two years off his life, he thought that there were very few of them who would not cheerfully sacrifice the two years in order to benefit the community to such an extent. In ecclesiastical and political history they read of men who were willing to sacrifice more than two years of life for their principles, of men who cheerfully went to instant death for the sake of their country or their creed. He did not think that Englishmen of the present day were less ready than their forefathers were to sacrifice themselves for the benefit of their fellow-men. But in this case temperance reformers did not offer the glories and the sufferings of martyrdom, they offered

something by which each would himself benefit and by which he would at the same time be helping to confer an enormous benefit on his fellows. As to the question of craving, he believed that there were doctors, ministers of religion, and men in the highest position in the Legislature, men who were possible inebriates, and who could no more take a glass of wine in the morning without the risk of becoming drunken than he could take a certain number of cups of tea without losing his night's sleep. There were all sorts of influences—the influences of modern life, inherited influences in the brain and nervous system, which made it impossible for many men to be moderate drinkers—they must either be drunkards or total abstainers. How could these weaker ones be helped to keep to the path of abstinence, which alone was the safe one for them, unless those who possibly were not in imminent danger stood side by side with them and asked them to come along with them in what was the right and safe path for all men? They were all too apt to look at things through their own spectacles, but a medical man should endeavour to look through his patient's spectacles, and not be too ready to think that what was easy for himself was not difficult for his patient. If they did that they would probably not prescribe alcoholic liquor as often as some of them did. A great responsibility rested upon the medical profession, because their lightest word to the patient was often turned to account in ways that they never intended. Therefore, they ought to very carefully weigh every single word of advice they gave with regard to alcoholic liquor. It was not his practice to order any at all, and there was no risk from not prescribing it; but if cases of emergency arose in which it was thought necessary or expedient to administer it, let a medical man never do so without remembering that his patient may have an inherited diathesis—may be a person who in certain circumstances, if he or she takes a single drop of liquor, must, unless prevented by violence, rush into a paroxysm of inebriety. Let them

never prescribe alcohol with less caution than they would exercise in prescribing, say, prussic acid. In conclusion, he would ask them if they were to lag behind the sister profession of which his lordship was so eminent a representative in this great race for temperance? If they had done their duty as medical men, it would not have been possible to say that in the medical profession there were fewer total abstainers than in his lordship's profession. The medical men ought to have been first in the field to show people what was the safe plan from a medical point of view. But, alas! they were out-distanced in the race. How much longer were they to lag behind?

#### DR. HINGSTON FOX

proposed, "That our best thanks are due, and are hereby given, to the Right Rev. the Lord Bishop of London, for presiding to-day, and to the Committee of the National Temperance League for their hospitality on this occasion." He said that no words of his could realise their indebtedness to the Bishop of London for coming amongst them to-day. Knowing as they did the great pressure of engagements and claims upon his lordship's time, they owed him hearty thanks, not only for his willingness to come, but for the address he had given them. He (Dr. Fox) could only hope that the appeal which his lordship had made would help all those who had heard it realise their responsibilities upon this great question more fully than they had hitherto.

#### DR. RIDGE

seconded the motion, and, speaking of the progress of the Medical Temperance Association, said that a few years ago he did not think they would have found anything like 130 abstainers among medical students. They had, however, 130 members among the students, and this number did not represent anything like the whole number of students who were total abstainers. Among those actually in the medical profession, total abstinence was clearly making considerable pro-

gress. Dr. Kerr had spoken about there being no need for martyrdom, but he (Dr. Ridge) thought that they could not ignore the fact that it required at all events a good deal of moral courage in a medical man to become a total abstainer. They did not, however, think that any detriment to their cause. They thought that if they could screw a man up to the point of becoming a total abstainer, and to show his moral courage in that way, they were doing him a distinct moral and spiritual good. It would be a great satisfaction to a man, at all events, in the hour of death to know that at some loss to himself he had promoted such a cause as that of temperance. He should be very pleased to take the names of those who were willing to join the Medical Temperance Association. They made no condition except that of personal abstinence.

The motion was carried by acclamation.

MR. JOHN TAYLOR, on behalf of the President, and the Committee of the National Temperance League, acknowledged the vote, and thanked those members of the British Medical Association who had accepted the invitation. They had held these breakfasts now for twenty-one years, and he thought that the Committee, from the long intimacy they had had with medical men, appreciated very fully the difficulties of medical men in regard to total abstinence. They appreciated very highly the heroic courage which had been exhibited by large numbers of the profession in staunchly upholding the practice of total abstinence among their patients. He did not know that it was fair to compare medical men with the clergy in this matter, because the positions and the circumstances of the two professions were very different. He thought that there was hardly any class of the public who in their advocacy of total abstinence had shown more heroism and had had more martyrdom to encounter than medical men had. Their meeting at Leeds last year was a memorable one, being the second held in that town, the first having been held in 1869. The

second meeting, like the first, was presided over by the veteran Sir Edward Baines, who took the chair last year, when ninety years of age, and who had now closed his long and honourable and useful life. Sir Edward Baines attributed his power to endure the very hard work that he had gone through as a journalist, as a man of business, and as a member of the House of Commons, and the health and strength which he maintained up to the very last, to his long period of total abstinence. He (Mr. Taylor) thought that that meeting also would be a memorable one in having had the presidency of the Bishop of London. They had their band of fanatics, as the *Times* the other day chose to call them, and his lordship, who had been head master of Rugby, Bishop of Exeter, and now Bishop of London, was an example of fanaticism of which they were very proud. With regard to his lordship's experience as to the appetite for drink, he thought that he would not deny that there did not exist the naturally regulated appetite in the use of intoxicating liquors that there was in reference to food. His lordship was one in ten thousand, and had a force of character which could crush with Nasmyth hammer force any thought that might cross him in the way of excess. But in a general way people who kept themselves, as they thought, under control, regulated themselves in this matter of drinking rather by count than by appetite. Even his lordship, though he had been a total abstainer for many years, still retained in his memory the maximum number of glasses of wine he had taken. He was sure that his lordship did not remember the maximum of anything else he had taken in the course of his life, and his lordship could not tell the maximum amount of mutton or beef or anything else he had taken besides wine. A relative of his (the speaker's), who was a man of remarkable self-control, said to him once at dinner, "My allowance is five glasses." Now they did not fix the amount of food in this way; but they did fix the amount of intoxicating liquor, because in the latter case there was not the



regulating appetite that there was in the former. Speaking as a layman, he thought that that was one of the strongest arguments they could have against the use of alcohol, because he thought that if nature had intended such a dangerous thing for our dietetic use, nature would have put the strongest controlling appetite in us with regard to it, and every succeeding glass of liquor would have become more offensive as we approached the danger point. For fifty years he had been a strict abstainer from alcohol, and during the whole of that time from tobacco, and every other kind of poison, and he claimed his healthy

looks as he approached threescore and ten to this practice of total abstinence. They used to speak of total abstinence as a premium to pay to insure sobriety; but he said, "There is no premium to pay. It is all bonus." Mr. Taylor, in conclusion, explained that the attendance at the breakfast would have been very much larger but that they were obliged to hold the gathering earlier in the Association week than was usual, with the result that many of their friends were unable to make arrangements to be with them that morning.

The company then broke up.

#### REPORT OF THE INEBRIATES LEGISLATIVE COMMITTEE.

THE attention of your Committee was, during the past year, specially directed to the reception and collation of replies to an inquiry issued to Boards of Guardians, as to whether in their opinion guardians should be empowered, for curative purposes, to detain habitual drunken pauper inmates, either in the workhouse or in some special home for the treatment of the disease of inebriety.

Three such circulars have been issued by your Committee. The first was sent out in 1881, the second in 1882, the third in 1889. To the first thirty-six replies were returned, to the second forty-nine, and to the third no fewer than 229. The affirmative responses were, in 1881, fourteen; in 1882, twenty-seven; and in 1889, 131.

Your Committee congratulate the Association on this remarkable advance of their proposals in the estimation of Poor Law guardians, as shown by the total replies in 1889 having been fully six times, and the favourable replies nearly ten times, as numerous as in 1881. The affirmative responses during the past year have outnumbered by thirty-three the total number of the opposed and the neutral, while many of the neutral are from boards which have had no experience of drunken "ins and outs."

Your Committee have been gratified by noting a corresponding advance in

public opinion on compulsory legislative provision for the treatment of inebriates. Several public bodies, including the Royal College of Physicians of Edinburgh, Society for the Study of Inebriety, justices of the peace at Manchester, and the Birmingham Prisoners' Aid Society, have passed resolutions in favour of such a procedure: In Scotland, the medical and legal professions have largely signed a memorial to the Lord Advocate in support of the leading provisions of Mr. Charles Morton's proposed measure for the compulsory reception and detention in Restorative Homes of diseased inebriates, for the reception and detention of voluntary inebriate applicants without the ordeal of an appearance before justices, and for contributions from the rates. These proposals have also been approved by your Committee and by the Association.

On the Continent, resolutions were agreed to at the Congresses of Belgium and Paris, approving of the interdiction of the diseased inebriate, whose will-power had been broken down, and his detention in a special institution for the treatment of his malady. In the United States of America, under the presidency of Mr. Clark Bell, of the New York Bar, the subject has been prominently discussed by the Medico-Legal Society,



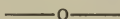
and by the International Congress of Medical Jurisprudence; while the American Medical Association devoted an entire sitting to the question. The American Society for the Study and Cure of Inebriety has celebrated its nineteenth anniversary by a dinner to the president, Dr. Joseph Parrish, on his seventy-first birthday, a record of the jubilant addresses at which is published by Dr. Crothers in the *Quarterly Journal of Inebriety*.

With a view to bring these, with other encouraging signs of advancing public opinion, as well as the gratifying experience in the treatment of inebriety at the Dalrymple Home and other places for the therapeutic cure of inebriety, and the results of the working of the Inebriates Acts, before the legislature, your Committee, conjointly with the Society for the Study of Inebriety, have memorialised the Prime Minister, the Home Secretary, and the Government, for a Parliamentary inquiry into the practical operation of existing legislation. Dr.

Cameron, M.P., has given notice of a motion for the appointment of a committee for this purpose.

The Committee recommend their re-election as follows:—The President and President elect *ex officio*; the President of Council; Dr. Norman Kerr; Mr. D. B. Balding, J.P.; Dr. T. Bridgwater, J.P.; Dr. C. Cameron, M.P.; Dr. Alfred Carpenter, J.P.; Dr. G. B. Clark, M.P.; Dr. C. R. Drysdale; Mr. George Eastes; Dr. J. W. Eastwood, J.P.; Dr. R. Farquharson, M.P., Sir Walter Foster, M.P.; Dr. W. T. Gairdner; Mr. W. C. Garman; Dr. J. Hill Gibson; Dr. A. Grant; Mr. F. J. Gray; Dr. C. J. Hare; Mr. R. H. B. Nicholson; Surgeon-Major G. K. Poole, M.D.; Mr. J. Pranker; Surgeon-Major Pringle, M.D.; Fleet-Surgeon G. Robertson, M.D.; Dr. Grainger Stewart; Dr. G. Danford Thomas, Coroner; Dr. H. W. Williams; Dr. Wynn Westcott; Dr. E. Hart Vinen; and Mr. H. R. Ker.

(Signed) NORMAN KERR, M.D.,  
Chairman.



## THE INEBRIATES ACTS, 1879 AND 1888.

### TENTH REPORT OF THE INSPECTOR OF RETREATS UNDER THE INEBRIATES ACTS, 1879 AND 1888, FOR THE YEAR 1889.

*Home Office, 30th July, 1890.*

I HAVE the honour to submit my tenth Annual Report, with respect to six Retreats licensed under the Inebriates Acts, 1879 and 1888, during the year 1889.

1. Full particulars as to these establishments will be found in the sub-joined schedule. I enclose a copy of the Rules for the management of the Retreats, as amended by the Secretary of State in 1888.

2. The following changes have taken place since my last report:—

Owing to the death of Mr. Harrison Branthwaite, F.R.C.S., which I record with much regret, new licenses have been taken out for the Hales Owen and the Twickenham Retreats.

Mrs. F. Smith has given up the

house at Brook Green, and has obtained a license to keep ten female patients at St. Veronica's House, Chiswick.

Dr. Westbury, formerly licensee of the Amesbury Retreat, has gone abroad, and the license has not been renewed.

3. In the aggregate, seventy-eight patients were admitted to these Retreats during the year now reported on. In 1888 there were ninety-nine; in 1887, sixty-six; in 1886, seventy-three; and in 1885 the number was seventy-seven.

4. The general as well as the sanitary condition of all the above Retreats has proved satisfactory, and the health of the patients has been very good on the whole. No death has taken place.

5. With respect to the working of the Act, and the results of treatment, I beg to refer to the reports received from the licensees of the following Retreats:—

*Rickmansworth.* — “As in former years our private patients have exceeded in number those entering under the provisions of the Inebriates Acts. There is a growing acknowledgment of the necessity of these Homes, and (but for the somewhat formidable attestation before two magistrates, at present necessary,) the majority of those now entering as private patients would be willing to avail themselves of the provisions of the Acts. I have innumerable applications from persons anxious to place themselves under restraint, but unable to do so from insufficiency of means to meet the charges we are compelled to make as a self-supporting Home. Many applicants desirous of assistance continually apply for admission, but when it comes to the point of voluntarily signing away their liberty, are unable to make up their minds, and consequently continue in the course which, in the majority of cases, is ruining themselves and their families, ultimately to become burdens to the State. No assistance under the Act can be rendered to this class of case. Nevertheless the present Act is undoubtedly doing good work, and we trust that, as time goes on, additions may be made to render its efficient working easier, and increase the possibility of its usefulness.”

*Twickenham.* — “In looking back over the year 1889 our minds naturally turn to the working of the amended and permanent Act, and we are of opinion that there is, as its beneficent influence and results are more widely known and understood, an increased willingness among patients to avail themselves of the protection afforded by its provisions. This, we think, is due partly to the removal, in the altered title of the Act, of the obnoxious epithet, ‘habitual drunkard,’ and partly to the amendment in respect to the *locale* of the attesting magistrates, although it is still a considerable obstacle that

the attestation is not left in the hands of *one* justice only. This is regrettable when it is remembered how desirable it is to make the entrance to such Homes as easy as possible. We look back with satisfaction upon the work of the past year, and this feeling of satisfaction amounts to one of pride when we consider the terrible ravages made by drink, and the strong hold it gets upon all sorts and conditions of men, as compared with the modest powers entrusted to licensees by the Legislature. Our communications with old patients who are cured have been sustained, are of a most gratifying nature, and, considering the natural reticence of those who have left us to recall their sojourn in a ‘Home,’ numerous and hearty. We know of no more cheering experience in the uphill work of a licensee than the moment when an old patient calls, and, with a hearty grip of the hand, assures him that it is one, two, three, or four years (as the case may be) ‘ago to-day since I entered High Shot House; I’ve not touched a drop since, and am more and more grateful every day I live that I came in. You may quote me as much as you like; only be careful how you use my name, as I am in a good way of business now,’ and the truth of the assertion as to abstinence is corroborated by eye, voice, hand and bearing, and by every symptom of the health and success which cannot co-exist with drink in anyone, and most especially in those who have *ever* been afflicted with the mania for stimulants. We have an ever-growing conviction that, for such at least as those who have this predilection for alcohol, there is *no such thing* as moderation, inasmuch as we have *no one* case on our books of sustained moderation after leaving us; it is either relapse or cure. We note with regret that there is still a ‘strong tendency to enter for an insufficient period, and this policy is lamentable, because it so frequently results in having to begin all over again by a return to the Home after a disheartening breakdown, not immediate, as a rule, but upon the first cause for extra excitement—a marriage or a death; a

pecuniary loss or a gain; a holiday or extra worry—alike may serve to prove that the recuperative work has been but half done. We therefore hope that the Home Office will not forget the importance of this element of length of period, should it in the future place any further legislative measure before the country. We also more and more recognise what important factors in the curative treatment of inebriety are plenty of open air and exercise, and the maintenance of a cheerful spirit in the Home."

*Brook Green.*—"In forwarding you the returns you desire in reference to patients admitted into this Retreat, and noting your request for any remarks that I may wish to make, I think that this year I can only strongly endorse those of last year. The number of applications received for admissions has been very high, amounting often to twelve and fourteen a week; but, alas! only a tithe of the cases are received, owing to the impossibility of securing the consent of the patients to being placed under restraint; and I fear that until some alteration is made in the law the usefulness of these Retreats will be very much restricted. Since our removal to a more outlying district, I have received nearly all patients under private agreements, as it is most difficult to secure the attendance of two magistrates. I heartily wish that some arrangement could be made by which the attestation of one magistrate would be valid."

*Walsall.*—"The majority of patients place themselves under the Act for as short a time as possible—often for not more than three months. Many of them are unable, from their condition of mind, to appreciate the value or necessity of even a short detention in a Retreat, whereas in nine cases out of ten a longer period is absolutely necessary. There is great need of compulsory powers with respect to habitual drunkards, who, at times, are unable to resist drink when at liberty. The Home should be made to take the place of the prison."

*Westgate.*—"I have much pleasure in saying that of the numerous patients

who have come into Tower House during the past year all have been most successfully treated, and I have every reason to believe that the majority are now abstaining from alcoholic drink altogether. Of the 65 patients under treatment during 1889, 27 were under the Act, and 38 were private Sanatorium patients; this is the largest number of patients ever admitted to Tower House in one year, and I attribute this principally to the particular mode of treatment which is adopted here with great success. At most of the Retreats I have been given to understand that patients are confined to the grounds for a long time after their admission; this is a very good arrangement, but it is subjecting the patients to a kind of imprisonment which cannot be altogether agreeable. At Tower House lady and gentlemen companions are permanently engaged, at considerable expense, to do nothing but walk out with the patients, and as they reside in the house they add greatly to the comfort and convenience of the patients. During the past year I have added a Winter Tennis Court, which is much appreciated in wet weather; and several hundred trees have been planted about the grounds to form a pleasant shelter in the summer. The new Inebriates Act is working much more smoothly than the old one did, and when it becomes more generally known and appreciated, many, I feel sure, will avail themselves of the great advantages it affords. I may mention that I contemplate the opening of a Retreat to be worked upon the same lines as those laid down for the Dalrymple Home when it was first started, namely, for the lower middle classes, where patients can be received at 20s. a week. Such an institution, I believe, could be made self-supporting, and would be a great boon to the community at large."

On the whole the amended Act has worked satisfactorily; none of the complaints made from time to time by the patients turned out, on investigation, to be serious, or called for interference on the part of the Home Office.

At the request of the licensees



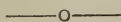
several patients were discharged before efflux of time, by justices under section 12.

I may add, in conclusion that a new Retreat for twenty female patients has been opened recently at the Grove, Egerton Road, Fallowfield, near Manchester, by Miss Merrett. The license bears the date 1st July, 1890. This Retreat for inebriate women is in con-

nection with the Manchester Women's Christian Temperance Association and Police Court Mission.

I have the honour to be, Sir,  
Your most obedient servant,  
H. W. HOFFMAN,  
*Inspector of Retreats.*

The Right Hon. H. Matthews, M.P.,  
&c., &c., Secretary of State for the  
Home Department.



### DISEASED CRAVINGS AND PARALYSED CONTROL.

DR. T. S. CLOUSTON, of Edinburgh, has thrown much light upon this subject in a series of four papers, published in the *Edinburgh Medical Journal* for December, February, March, and May last, under the general title, "Diseased Cravings and Paralysed Control: Dipsomania, Morphinomania, Chloralism, Cocainism," which deserve the careful perusal of our medical readers. Dr. Clouston deals with the same topic much more briefly in the last report of the Royal Edinburgh Asylum for the Insane, from which we give the following extracts:—

"There can be no doubt whatever that the most common symptom of every form of mental disease is the loss or diminution of the power of control, that highest of all the brain qualities. In this loss senility shares. Neither sanity nor insanity can be defined, but the definitions that are nearest to truth are undoubtedly that sanity is self-control, and insanity is its absence.

"Nature has implanted in every living creature cravings or desires that lead to action for their gratification. A craving means a need in every healthy organism. The active main object of the lives of every living thing is necessarily to gratify those cravings and to supply those needs. In the upward progress of life and organisation the cravings become more intensely felt, the desires more keen and complicated, until we find them in civilised men to be as the stars for multitude. The simple cravings of the animal life for

food, society, and progeny become infinitely complicated. Desires become transmuted into motives of action of every kind and degree—physical, mental, emotional, and moral. The transformations of desires from the lower into the higher kind in quality, from the simple and evident into the intensely subtle, as man rises in the scale of mind and civilisation, means that his brain has become an organ of a hundredfold more delicacy and complication, as compared with that of the savage. It is not sufficiently realised that this complication, this intensity, this subtlety of desire, necessarily implies a corresponding multiplication of the controlling forces. To have keen and subtle cravings, with no power of control over them, would mean death and social anarchy in a generation. Now it is the controlling forces that are ever the highest and the most difficult of exercise, and their power is more than anything else the test of sound brain-working. An animal or a simple barbarian only needs to exercise control in a few definite directions, and in regard to a few simple matters. The whole faculty of control is in them like the brake of a waggon, a single block of wood, with enough force behind it to make it grip one wheel. Far otherwise is it with the checks and counterpoises, the 'governors' and adjustments of a steam weaving loom that makes fine cloth of a complicated pattern. That may be taken to represent the controlling powers of the brain of a civilised man.



They need to be put into exercise almost every hour of waking life in many ways, and to resist innumerable subtle dangers. Three things seem to me especially to make for mental breakdown in modern civilisation.

1. The number and variety of men's cravings which represent their needs;
2. The complication and strength of the 'inhibitory' powers required to regulate and control those cravings;
- and 3, the frequent tendency of the cravings and desires to mistake their real objects. The moment we have a craving for something that, if attained, would be hurtful to the organism, then we have something that is contrary to nature's law, and is more or less of the nature of disease. It is one most prominent characteristic of our modern civilisation, that it exerts itself to create 'artificial' needs in all directions, physical and mental, and each one of those enlarges the area of human desire. Such needs and desires soon become hereditary. We feel them because our fathers created them. When those desires come to be subjected to control and regulation, as each one of them must necessarily be in our complicated society, for 'no man liveth to himself,' then we have the strains and the disappointments of life, and the consequent 'break-downs. In a well-ordered brain each craving should have as a necessary complement its controlling force, always a little more powerful than itself. But through subtle disease of the controlling force, or by heredity, we find the cravings and the desires getting intensely strong, while the controlling forces get weakened. The result is the same as when the break of a carriage won't act in coming down hill. *It always implies less expenditure of energy to crave than to control.* The prevalence in any human society of the forces of desire over those of control means a departure from essential sanity. It may take a generation or two to reach actual insanity, but the road to it lies that way. On the other hand, some societies and sects have set up control as being the only thing worthy of human effort for its own sake, and apart from its real uses over

desires. The result has been what always follows breaking nature's laws. Over-development of control has led to insanity, just as the lack of it has done.

"Those somewhat abstract propositions are perhaps best illustrated by reference to the relations of the craving for drink and insanity. So long as there existed no tempting stimulating foods, there would be little gluttony, and while there were no fermented stimulating drinks, there would be no excess. In either case a controlling force over appetite would not be needed, and would not exist, except as a potentiality. But from the time that fermented drinks were discovered and liked, while the risk and evils of partaking to excess were seen, the latent brain-power of inhibition over desire for them would have to be developed and exercised. Otherwise the race would have been killed off very soon, as the Red Indians were with the fire-water. A product of science and civilisation that created the intensest craving was presented to them when their controlling forces had not yet been developed. It is of the nature of alcohol in every shape and form that it has a special affinity for the brain, that it creates a desire in the brain for itself, and that that desire leads to ill, and is therefore of the nature of disease. The precise action of alcohol on the nerve cell we do not know, but it affects it in most men, so as to cause conscious pleasure. It creates an artificial need, and a craving to supply that need. But I maintain that the need and the craving which in nature are conjoined for the good of the organism are in this instance changed in their relationship, and are tending towards the morbid. There is a felt need, but it is commonly for food and rest, or for a social stimulus, and this is misinterpreted by the brain through the action of the alcohol, and becomes a craving for a repetition of the artificial stimulant. The two things that nature had conjoined to preserve life—special necessity and special desire—have become perverted, so that something is desired that is hurtful to life, at all events if taken in the quantity

craved. This dissociation of the two things that ought to be inseparable, and that Nature has made inseparable till she is interfered with—desire and the good resulting from its gratification—is at the root of the relations of drinking and insanity.

“Weakened control is necessarily bad for life, for when we have a craving for something harmful, such as alcohol or opium, set up, there is then no check on its gratification. And alcohol emphatically weakens the power of control, as well as sets up a diseased craving—that is a craving for something that will hurt the life of the organism. And disordered function, the preliminary to death, first takes place in such cases at the highest part, that is in the mental portion of the brain. We must by no means make the mistake of thinking that a desire must not be in any way attended to because it is morbid. It *indicates a need of some sort*, but not necessarily the thing craved for. We have to find out when a drunkard craves for drink what the brain and the system *really need*, the supplying of which will quench the morbid craving, and at the same time prolong life. When a weak maniacal patient craves continuous exercise and loathes food, what we require is to find out how the craving and the repulsion—both perhaps equally morbid and bad for him if left unguided—are to be stopped by means that will save life. Therefore the treatment of the drink-craving is not to ignore it, and not to control it merely, but to adopt means that will so alter the brain working and improve the health that the craving will cease. Merely to preach control to a dipsomaniac without adopting means to make his craving to cease would not be scientific treatment of the disease any more than preaching control to a maniac who shouts, sings, and leaps.

“In all these matters we have to study the facts and meet them, not to apply any *a priori* rules. One exceedingly unpleasant fact that meets us at every turn is, that through disregard of the laws of our being in past generations, a hereditary con-

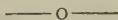
dition has been established in many brains through which the intensities of feeling and craving far outrun the forces of control. This in the early stage may produce a brilliant literature and poetry, with some deeds of heroic type, but too widely prevalent in any modern society, it certainly makes for insanity in a few generations.

“We never, except in 1876, had so many cases sent here any previous year in which the assigned cause of the malady was alcoholic excess as this year, and the percentage of such cases was never so high. There were 81 such cases, or 25 per cent. of the whole, our average percentage for fifteen years back from this cause being 16·4. Taking the men alone there were 63 such out of a total of 172, being 36·6 per cent. of the whole. Another view of the alcoholic cases is still more startling. Taking the admissions to the West House alone, that is working people chiefly, and confining the inquiry to men between twenty-five and sixty, the chief wage-earning period of life, I find that 53 of the total of 124, or 42·7 per cent., were of those in which alcoholic excess was assigned as the predisposing or exciting cause. The reason for this marked alcoholic causation this year I cannot surely assign. It may be that it is an accident of the year. Or it may be that the increased prosperity among our workers is having this as one of its bad effects. Those persons who are naturally lacking in self-control, having been for many years previously earning little money, and now finding themselves flush, may have, by a natural reaction, gone in for spending an undue proportion of their more easily-earned money in drink, with the result of this increase of alcoholic insanity. I am inclined myself to this view. We must, I fear, admit that the possession of much more money than is needed for food and clothing, is to many of our fellow-citizens a temptation to break the laws of their being, which they are unable to resist. There has been drunk during 1889, I see, £7,500,000 worth of liquor over 1888. But no doubt there are more than compen-

sating advantages in good wages in the benefits they confer on those who do use money rightly; and there is something too on the other side of the account in the mental exhilaration, the social pleasure, and the raising of our mental tone into the ideal, which drink sometimes produces, and which, I am not prepared to say, is not antagonistic to melancholy and to delusional feeling in some cases.

"We never before had so many

cases of general paralysis (29), a disease largely due to dissipation, as this year. During the five lean years 1881-1885 this terrible disease was much less frequent, forming only  $4\frac{1}{2}$  per cent. of our admissions, instead of the 9 per cent. of this year. It is a suspicious coincidence that a very fat year of especially high wages, 1876, was also that on which the next highest proportion of alcoholic causation and of general paralysis occurred."



### THE BERLIN MEDICAL CONFERENCE.

THE International Medical Congress recently held at Berlin appears to have been by far the largest of its kind ever held, the official statistics of members showing that their number amounted to 5,880, of whom 1,166 belonged to Berlin, 1,752 to Germany (exclusive of Berlin), 262 to Austria-Hungary, 358 to Great Britain and Ireland, 112 to the Netherlands, 62 to Belgium, 2 to Luxemburg, 179 to France, 67 to Switzerland, 146 to Italy, 1 to Morocco, 41 to Spain, 5 to Portugal, 108 to Sweden, 5 to Norway, 139 to Denmark, 429 to Russia, 12 to Turkey, 5 to Greece, 32 to Roumania, 2 to Servia, 5 to Bulgaria, 659 to United States of America, 24 to Canada, 12 to Brazil, 14 to Chili, 7 to Mexico, 30 to the rest of America, 8 to Egypt, 1 to the Cape of Good Hope, 5 to the rest of Africa, 2 to China, 22 to Japan, 2 to the East Indies, 2 to Dutch India, and 7 to Australia.

The *British Medical Journal*, which had fifteen reporters present, says:—"The public festivities included a reception on Monday, on an immense scale, of all the members of Congress and their ladies, a "wine party" on Tuesday at the Guildhall, at which 4,000 persons were entertained at table, a series of eighteen sectional dinners on Wednesday, at one of which as many as 900 guests were served with an elaborate entertainment; five public balls on Thursday night, for all the members of Congress, some of whom made the round; and on Saturday a final evening garden party and musical entertainment."

"The private hospitalities of the resident physicians were on a very large and general scale. Many of the leading men gave banquets almost daily to forty or fifty guests (among whom were many ladies), the hour being fixed at five or six, so as not to interfere with the subsequent entertainments. The German fashion was followed at all these as well as at the public dinners, of toasts, and sentiments, and speeches (in every language) between all the courses of the dinner, and of a general uprising of the guests after each, and a wandering round the table to clink glasses with old friends and new acquaintances. This erratic, but well-established and time-honoured fashion, produces an effect of disorder on the minds of those to whom it is new; but the peripatic conviviality to which it gives rise, and the opportunities which it affords of a welcome change of attitude, and a varied round of courteous interchange of sentiments, recommend it to the genial, hospitable, and warm-hearted Teutonic race, and it proved a very acceptable custom, into which the foreign neophytes soon became initiated, and in which they joined with spirit."

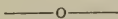
The 600 papers presented to the Congress included one on Bright's disease, by Professor T. Grainger Stewart, of Edinburgh, in which he said:—

"Among the causes of Bright's disease few are more important than excessive indulgence in alcohol, and few tend more to keep up renal irrita-



tion when it has been established. I have sought for evidence as to the effect of alcohol in the different forms of chronic Bright's disease, and have found that, apart from its slow or gradual influence, the administration of a full dose in a case of ordinary inflammation of the tubules rather increased the quantity of urine, and slightly the amount of albumen, while the urea remained practically unchanged. In cirrhosis I am not so certain as to the result. In the waxy or amyloid disease I have seen a full dose of alcohol produce a distinct fall in the urea, unattended by increase of albumen. There are many cases of Bright's disease in which, for reasons apart from the kidney, alcohol is eminently desirable, but the minimum that will suffice should be given, and that always well diluted with water or milk.

In selecting the stimulant suitable for individual cases it is best to avoid the habitual use of those that tend to irritate the kidneys, and, in particular, of gin; while, on the other hand, its use is sometimes followed by excellent results in tubular inflammation. But such stimulants as gin, whisky, or brandy, must always be well diluted. Rhine wines and sparkling wines—particularly some of the Hungarian varieties—may be occasionally used with advantage when a patient requires at the same time a fillip and a diuretic; but, on the whole, wines, and especially the sweet and heavy varieties, should be avoided. With regard to malt liquors I find it best to avoid them altogether, and very rarely to allow a light and pure German beer, but only when specially indicated, and never for habitual use."



### ALCOHOL AS A MEDICINE.

A GENERAL PRACTITIONER writes to the *Lancet* an exceedingly valuable and suggestive letter upon the treatment of a patient, a young man of twenty-four, who, although otherwise strong, and to all appearance healthy, was suffering from an inward complaint, which, in the opinion of a hospital surgeon to whose ward he was taken by the writer, necessitated an operation. He was somewhat nervous and apprehensive about the operation, but determined to submit to it as a chance of relief from a life of intolerable misery. He had all his life lived in the country, was most abstemious in his habits, and had an excellent family history. On April 29th he was put under chloroform, and the operation performed. After it he was sick, prostrate, and lifeless. He was given morphia, brandy, and beef-tea, and as soon as the sickness somewhat abated he was ordered, *inter alia*, eight ounces of brandy a day. The writer continues:—"On May 3rd, I called at the hospital to see him, and was dismayed to find him in a dying condition, the house surgeon

telling me they could not see any reason for his getting into this condition, and hoping I should be able to cheer him up and rouse him. I had only just time to summon his mother, who had the melancholy satisfaction of seeing him die the following day. The visiting surgeon had been out of town, and did not see the patient again after the operation.

"Now, sirs, I do not blame the surgeon for operating under the circumstances, but I do call in question the after treatment. I should have liked to protest even at the eleventh hour, but the patient was out of my hands, and subject to the officers of the institution. The poor fellow protested as long as he was able to speak that every dose of brandy made him worse. I am sorry to have had to take up so much space with explanatory matter, but the point I want to urge is this. The nervous system was undoubtedly prostrated by the chloroform, but the probabilities are he would have rallied from this if left alone; but the effect was kept up, in the first instance by morphia and



chloral, then the continued dosing with brandy completed the work. After all that has been written by men of eminence on the medical aspects of the alcohol question, and after your own advice, again and again repeated in the *Lancet*, that alcohol should be carefully watched, and only given in small doses, I was amazed to find it used to such an extent. When will the profession as a body recognise the fact that alcohol is a narcotic and a paralyser of nervous energy, and that a patient with a dangerous disease upon him has enough to fight against without handicapping him with another enemy in the shape of alcohol, in doses of eight ounces a day? A young man like my patient, who had probably never before taken eight ounces of brandy in his life, was peculiarly susceptible to its effects. There was no suspicion that the operation would have been the cause of death."

Dr. Grosvenor, in the *Buffalo Medical Journal*, sums up his views respecting the medicinal use of alcohol as follows:—

"1. Grave responsibility rests upon the medical profession in the use of alcohol as a medicine, on account of its deleterious influence upon the system and the liability of the patient to contract the habit of using it as a beverage.

"2. Alcohol being an acrid narcotic poison, the bottle containing it should be labelled "Poison," as a reminder of this characteristic and a warning to handle it with care.

"3. Alcohol, containing none of the compounds which enter into the construction of the tissues, cannot properly be termed a tissue-forming food.

"4. The evidence in favour of the existence of a heat-generating quality in alcohol is not sufficient to warrant the belief that it is a heat-producing food.

"5. As a narcotic and anæsthetic, alcohol has a limited sphere of adaptation, and is much less valuable than several other narcotics and anæsthetics.

"6. The stimulating effect of alcohol may be best secured by small doses frequently repeated.

"7. From the fact that its stimulating effect results from its paralytic action, alcohol is more properly called a depressant than a stimulant.

"8. As an antispasmodic and antiseptic, it may be superseded by other remedies, without detriment to the patient.

"9. Although alcohol is a positive antipyretic, and, therefore, useful in the reduction of bodily temperature, it is neither so prompt nor so effective as several other antipyretics.

"10. In cases requiring a remedy which will rapidly evaporate, alcohol is useful as an external application.

"11. So easy is the acquirement of the alcoholic habit, and so ruinous its consequences to body, mind, and spirit, that extreme caution should be exercised in its use in all cases, and its administration stopped as soon as the desired effect has been secured.

"12. Alcohol, as a medicine, should be reserved for emergencies, unusual conditions, and circumstances in which a more reliable and less injurious remedy cannot be obtained.

"13. Adulterations of alcoholics are so extensive and so pernicious, and their different preparations so variable in the amount of alcohol they contain, that it is best to demand pure alcohol of a definite strength in medical prescriptions.

"14. In the prescription of alcohol, the same care as to exactness of doses and times of administration should be exercised, as is used in prescribing any other powerful medicine.

"15. When intended to act therapeutically, alcoholics should not be prescribed as a beverage and taken *ad libitum*.

"16. The fact that methyl alcohol passes very rapidly into and out of the system is an argument in favour of its more general use for internal administration.

"17. So deleterious are the effects of alcohol upon the human body, that it is eminently proper to inquire whether its harmfulness does not overbalance its helpfulness, and whether it could not be dropped from our list of therapeutic agents without any serious injury to our patients."

## Notes and Extracts.

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**ALCOHOL AND MADNESS.**—Dr. Brouardel has read to the Paris Academy of Medicine a paper by Dr. Paul Garnier on the effects of the alcohol sold in Paris upon the nervous systems of those who consume it. Since 1877 the number of madmen has increased threefold upon that of the preceding thirteen years.

**"THE HEALING ART THE RIGHT HAND OF THE CHURCH."**—Those who are acquainted with Dr. Brodie's "The Healing Art the Right Hand of the Church," originally published just thirty years ago, will rejoice to hear that its learned author is giving to a new edition the added experience of the last thirty years. The original book has been a very valuable repository of information on medical mission subjects, and we earnestly hope that "Therapeutes" (Dr. Brodie's *nom de plume*), may be enabled to bring his design to a speedy and successful issue.

**MORAL AND PHYSICAL EFFECTS OF ALCOHOL.**—The *Calcutta Medical Record* has the following notice of a pamphlet of thirty-nine pages by Surgeon Patrick Hehir, M.D., of the Bengal Service:—"It treats of the chemistry of alcohol, its physiological action on the human system, and portrays its effects on mind and morals in graphic style. We have read this little pamphlet with much satisfaction, and the friends of temperance will find in it a useful weapon in the 'war on drink,' while students would do wisely to read its well-digested facts written in clear and scholarly language."

**ALCOHOL AND HEART DISEASE.**—During a discussion at the Birmingham meeting of the British Medical Association, Dr. C. R. Drysdale and Dr. W. R. Thomas (Bournemouth) called attention to alcohol as a cause of functional disorders of the heart. Dr. Thomas said:—"Alcohol acts not only upon the heart, but upon the

nervous system generally. It acts at first as a stimulant, and afterwards as a depressant, and ultimately by its presence in the blood it produces a disease of vessels, heart, and other organs. By inducing a state of chronic gastritis it gives rise to indigestion and its consequence, namely, pressure upwards against the heart.

**THE TREATMENT OF ALCOHOLISM BY STRYCHNINE.**—Dr. Pombrak, writing in the *Meditsinskoë Obozrènie* on alcoholism, describes seven cases treated by hypodermic injections of strychnine—a method that seems especially in favour in Russia, where, however it must be remembered that drunkenness presents as a rule forms somewhat different from those prevalent in this country. Dr. Pombrak found strychnine a very valuable remedy, both in cases of chronic alcoholism and in those of dipsomania, not merely curing the attacks, but abolishing the desire for drink. Even attacks of delirium tremens were influenced beneficially. The treatment must be carried out in a systematic manner, and must frequently be kept up for a very considerable period. As to the dose, Dr. Pombrak in cases of moderate severity commenced with one-thirtieth of a grain, in more serious ones with one-fifteenth. He found that while the treatment was being carried out there was no necessity to order the patients to abstain from the use of spirits, as they always did so of their own accord.—*Lancet*.

**DOCTORS AND WINE.**—Nothing indicates more plainly the healthful advances in regard to diet than the changes that have occurred in physicians themselves. Two hundred years ago, and even much later, doctors were notorious for their eating and tipping, and were generally very fat. Dr. Beddoes was so stout that the ladies called him their walking feather bed, and Dr. Fleming weighed

291 lbs. until he reduced his weight by abstinence and eating a quarter of an ounce of Castile soap every night, and Dr. Cheyne weighed 384 lbs. It is said that it was during the seventeenth century, when doctors drank so heavily, that it became fashionable for them to write such illegible prescriptions, which were the result of their trembling hands. The man who remains abstemious where no liquor is to be had, does not deserve much credit; but the man who is temperate when the sparkling champagne stands beside his plate merits our approbation.—*Journal of the American Medical Association.*

**PLUMBISM AND ALCOHOLISM.**—At a recent meeting of the Academy of Sciences M. Charcot read a note on some experiments in plumbism carried out by MM. Combermarle and Francois. They caused from one to five centigrammes of carbonate of lead to be consumed daily by animals. At the end of about a month the nervous symptoms of saturnine poisoning made their appearance—such as epileptic fits, delirium, &c.—just as they are observed in man. This was, of course, not new; but the interesting point was that in certain of the animals experimented upon the administration of large doses of alcohol was found to hasten in a remarkable manner the advent of the nervous symptoms. The same thing was noticed when others of the animals were subjected to any abrupt emotional shock, such as fear. These facts were worthy of note, for in man a similar precocity of the nervous phenomena of plumbism was observed whenever those already suffering from lead poisoning were subjected to a moral shock or became addicted to alcohol.—*Lancet.*

**LUNIER PRIZE ON ALCOHOLISM.**—The French Temperance Society against the use of alcoholic beverages have received from Mrs. Lunier one thousand francs, to be called the Lunier Prize, to be given to the author of the best essay on the following questions:—What are the consequences of hereditary alcoholism, and what are the best means of prevention, or means to limit

or lessen its effects? Authors are expected to follow out the lines of inquiry suggested in Lunier's work on "Alcoholism." The Society does not limit this study and research, but wishes it to embrace all the questions of moral, social, and therapeutic means, for prevention and restriction of inebriety. The Society will accept parts of printed works, as pamphlets on this topic that have appeared before January 1st, 1890, associated with what has been written since this date, to compete for the prize. All manuscripts should be received before December 31st, 1890, and should be addressed, Dr. Motet, Secretary-General of the French Temperance Society, 161, Rue de Charonne, Paris, France. *Quarterly Journal of Inebriety.*

**DRINK HUNGER IN WOMEN.**—Under this somewhat peculiar title Dr. Hugh Campbell has sent forth a little book (Renshaw, 356, Strand) which is designed to call attention to the fact that "many of the most marked cases of intemperance, especially in women, may be traced to some error in the digestive system." The reasons for this view, and the treatment recommended, are clearly stated by the author; but it appears to us that he has omitted to give due prominence to the part played by alcohol in producing and aggravating the stomachic disorders which he believes to be a prolific cause of intemperance. Dr. Campbell, however, is by no means an advocate of drinking. He is of opinion that, after restoration to mental and bodily health, "the risk of danger can only be averted by complete abstinence from all forms of alcoholic drinks, and constant and careful attention to the stomach. The drink-hunger, which has been overcome, must not be called into existence again, either by errors in diet, or even the most guarded employment of intoxicating liquors."

**CHEMISTS AS WINE MERCHANTS.**—The *Lancet* describes as "a grave novelty in licensing" the grant of drink licenses to two chemists at Margate. It says: "The applications were based on the fact that medical men, and particularly specialists,



were now in the habit of prescribing 'medicated wines.' One of the chemists said he did not make such wines, but they were prescribed by physicians, and could not be sold without a license. But physicians prescribe brandy and beer. Surely chemists are not, therefore, to have license to sell these things pure and simple. We regard this as a new departure in licensing that may be more disastrous even than grocers' licenses. Chemists are licensed to dispense drugs, not lightly veiled spirits and wine. We protest, in the name of the medical profession, against this grave innovation." The *British Medical Journal* also disapproves of these licenses, and expresses a hope that "the allegation against the medical profession is too indiscriminate. While there may be exceptional cases in which the use of a medicated wine may be ordered with advantage, there can be little doubt that a routine unguarded recommendation of this class of remedies is fraught with danger. This resort to vicious pharmaceutical preparations may excite to inebriate indulgence, in certain cases arousing a latent and inordinate drink crave. Wherever possible, the more judicious course is to prescribe medicinal mixtures."

**ALCOHOL IN CHILDHOOD.**—In a paper read at the Birmingham meeting of the British Medical Association, Dr. Thomas More Madden, Physician to the Dublin Hospital for Sick Children, said:—"The evils resulting from the abuse of alcohol were never so prevalent as at present, and are traceable in the diseases of youth as well as in those of adult existence. The results of this acquired or inherited alcoholism are brought under clinical observation in the form of cerebral, gastric, and hepatic disorders, and especially cirrhosis of the liver, as well as the protean forms of cerebro-spinal disease, and the various neuroses so frequently noticed in hospitals for children, and to which I have elsewhere directed attention. In the majority of these cases of juvenile alcoholism that have come under my care in the Children's Hospital, Dublin, this tendency ap-

pears inherited and most marked in those whose mothers were inebriates—intemperance in women also bearing in other ways on the diseases treated in hospitals for children, where its effects are strikingly evinced by the moral and physical deterioration of the offspring of the drunken, and by their special predisposition to strumous, tubercular, and other constitutional taints. Under no circumstances should alcoholic stimulants be given to children, save in the guise and defined doses of other remedial agents—my experience in hospital and private practice, at home and abroad, having amply confirmed the view expressed in a work of mine published many years since—viz., that it is physiologically wrong, as well as morally unjustifiable, ever to allow a healthy child to taste alcohol in any form."

**ABUSE OF COCAINE.**—At a meeting of the Society of French Alienist Physicians, recently held at Rouen, M. Saury read a paper on this subject, which, in view of the extensive use which cocaine now finds, is of interest to practitioners in general. M. Saury related the case of a patient thirty-two years of age, who, being addicted to the use of morphine, had recourse to hypodermic injections of cocaine in order to relieve himself of the craving for the former. He soon, however, presented all the symptoms of an abuse of his remedy, for he suffered from insomnia, and became the victim of hallucinations and jealousy, with ideas of persecution, &c. His condition became so aggravated that it was necessary for his friends to have him secluded. Under these circumstances it became possible to gradually diminish the amount of cocaine, and after forty-eight hours of total abstinence the delirium and hallucinations disappeared. Shortly afterwards, however, the patient fell back into his old habits, abusing both morphine and cocaine. The same symptoms recurred, accompanied by marked cachexia. Again on suppressing the cocaine he was relieved of his delirium and hallucinations. These observations go to prove that the reckless use of co-



caine is extremely likely to have serious consequences, for there was no doubt in M. Saury's mind that to this were to be attributed the delirium and hallucinations. He added that, in the case in question, as well as in seven others of the same kind which he had under observation, there was no history of alcoholism.—*Lancet*.

**INEBRIATE ASYLUMS.**—We should be interested to know the amount of the salary attached to the office of Inspector of Inebriate Retreats for England. The annual report to Parliament of that functionary is before us, and perusal of it impresses us with the conclusion that £5 a year would be excessive overpayment for the work which he has devoted to its preparation. The document contains three pages and a quarter, of which two pages and three quarters are made up of clippings from the *ex parte* reports of the licensees of retreats, while the original part contributed by the inspector covers exactly nine lines. The one grain of wheat in the bushel of chaff is the statement that 76 patients were admitted within the past year to the six retreats, against 99 last year, and 66 the year before. The inspector does not vouchsafe a syllable of information as to the nature of the cases so admitted, or as to the curative results of the system, nor a word as to its financial success or failure. No suggestion is made as to an extension or improvement of the law which deals with the subject, and no mention is made either of difficulties in its working or of faults in its provisions. It seems to us that the Home Secretary, to whom this report is nominally addressed, might with great advantage intimate to the inspector that if he cannot find time or intelligence to produce a better account of his year's work than this, it would be desirable that he should hand the business over to some one else.—*Medical Press*.

**DRUNKENNESS AND LUNACY.**—On the 8th September, before the ordinary business of the South Stockton Petty Sessions was proceeded with, Ald. Richardson stated that they had re-

ceived an important communication from the Middlesbrough Guardians, and he asked the members of the Press if they would note the contents of the communication, which read as follows:—

“Middlesbrough Union.

“At a meeting of the Board of Guardians of the Middlesbrough Union, held at the Board-room, Municipal Buildings, on Thursday, the 4th day of September, 1890, it was resolved, ‘That in view of the pauperism, desertion, and culpable neglect of children, as well as the increasing cases of lunacy directly attributable to excessive indulgence in intoxicating liquors, this Board respectfully urges the Licensing Bench of the borough of Middlesbrough, the division of Langbaugh North, and the division of Yarm, to put no further temptation in the way of the people, but to diminish, if possible, the number of licensed houses, which are already much too numerous in some parts of the parishes for the necessities of the residents. Also, that a copy of this resolution, signed by the chairman and the clerk, be forwarded to the chairman of the respective Licensing Benches.’

“WM. BULMER, *Chairman*.

“T. JOHNSON, *Clerk*.”

Alderman Richardson stated that the Bench were in entire sympathy with this resolution. They had granted no new licenses, and they would carry out the law to the best of their ability. No one knew better than himself, being chairman of the Lunacy Asylum Committee, of the increased rate of lunacy caused by drink, and about every month they discharged about six or seven men, who, when asked what brought them there, the one answer was drink. He hoped the working men who heard him would take notice of what he had said, for they meant to put down drunkenness as much as they possibly could.

The Clerk (Mr. Faber) was instructed to acknowledge the receipt of the communication, and inform the Board that the resolution had the entire sympathy of the Bench at South Stockton.—*Newcastle Leader*.

# British Medical Temperance Association.

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*President.*

Dr. B. W. RICHARDSON, F.R.S.

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## CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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*Honorary Secretary.*

Dr. J. J. RIDGE, Enfield, Middlesex.

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Mr. F. W. MOSS, Edinburgh University.

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## IRISH (CENTRAL) BRANCH.

### NEW MEMBER.

Dr. EUSTACE, Elmhurst, Glasnevin, Dublin.

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## NOTICE.

### STUDENTS' EXAMINATION.

It is hoped to arrange for a second examination of Third Years' Medical Students on the subject of Alcohol, and to give prizes as before. As special subscriptions are needed for this desirable object, which is calculated to exercise such an influence on young Medicine, members are earnestly requested to assist by special subscriptions for this purpose.

J. J. RIDGE, *Honorary Secretary.*

Carlton House, Enfield, Middlesex,

September, 1890.

THE  
MEDICAL TEMPERANCE JOURNAL,  
January, 1891.

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Original Contribution.

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THE LONGEVITY OF ABSTAINERS.

A REPLY TO SOME DOUBTS AS TO THE SUPERIOR HEALTH AND  
LONGEVITY OF TOTAL ABSTAINERS FROM ALCOHOL.\*

By DR. C. R. DRYSDALE, *Senior Physician to the Metropolitan  
Hospital of London.*

It has long been known to all persons of ordinary powers of observation that alcohol is the cause of many deaths, and much chronic disease; but it is only in recent years that any very accurate information on the subject has been obtainable. Gradually, owing to the writings of Drs. Magnus Huss, Grindrod, Edmunds, B. Ward Richardson, Norman Kerr, &c., the medical public of this country has begun to pay attention to the question whether alcohol should be considered as a food, or as a legitimate addition to the articles of daily consumption of civilised mankind. It must be noticed in passing that the most telling arguments against the use of alcohol recently made use of have emanated from the working classes, who suffer so many evils from alcohol; and that the various Insurance Offices and Friendly Societies have been the most important agents in explaining the true effects of that favourite luxury of all classes. In 1883, when I had the honour to read a paper before this Society, on "The Longevity of Total Abstainers and Moderate Drinkers," it seemed clearly proved to all who were present that the health and lives of total abstainers were better than those of

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\* Read at the British Medical Temperance Association Meeting, on November 28th, 1890; Dr. B. W. Richardson in the chair.

non-abstainers from alcohol. But subsequent experience has shown that there are many persons who are by no means of that opinion. Thus I read in "The Victorian Year Book, 1888-9," published in 1890, by a most able statistician, Mr. H. E. Hayter, of Australia, the following passage:—"The Collective Investigation Committee of the British Medical Association some time since inquired into the effect of the consumption of alcohol upon duration of life, and received information respecting the habits of 4,234 males who died at different ages, all, however, being over twenty-five years of age. The result of this inquiry was published in the *British Medical Journal* of June 23, 1888, and is to the effect that, although strict moderation in the consumption of alcoholic drink is favourable to longevity, total abstinence is not so, the average lifetime in the group containing the total abstainers being apparently shorter than that of the members of the other four groups into which the individuals respecting whom observations were made were divided." Mr. Hayter then refers to the five groups—the habitually temperate; the careless drinkers; the free drinkers; the intemperate; and the total abstainers. This table showed that the total abstainers had an average at death of fifty-one years eighty days, whilst the moderate, and even the intemperate drinkers, all had a higher age at death. Now, when a gentleman of the experience of Mr. Hayter can take this view of the results of the British Medical Association Committee, it is evidently important that the question should be again thoroughly discussed, in order that any difficulty may be explained.

But it is not Mr. Hayter alone who has a different reading of statistics from many of the members of this Society. An able leader-writer in the *Lancet*, commenting upon Mr. Hayter's excellent "Year Book," speaks as follows:—"Based upon the statistics of the Friendly Societies, published by that gentleman in his 'Year Book,' and on his special report of Friendly Societies, an article on 'Comparative Mortality and Sickness in Friendly Societies' somewhat recently appeared in the *Melbourne Age*, having, apparently, for its object to prove that Societies which make a speciality of abstinence from alcohol show the apparently paradoxical result of a low death-rate, together with a high sickness-rate. The result has been arrived at before by other persons dealing with Friendly Society statistics, and its bearing upon the value of alcohol as an article of diet is of sufficient value to encourage the hope that the subject may receive more attention and investigation at the hands of competent statisticians." I have been unable to verify the accuracy of this statement in the *Lancet*.

Now, I propose to take these two writers as the most able



champions of the view that alcohol is a useful article of diet, tending to longevity when moderately used, and useful in warding off sickness. And if it can be shown that the inferences drawn by Mr. Hayter from the British Medical Association statistics, and those of the leader-writer in the *Lancet*, are fallacious, I think something will have been accomplished in making the truth clearer to the world at large.

To begin, then, with the figures which warranted the conclusion of Mr. Hayter that even intemperate lives have an average at death higher than total abstainers, let us see what actuaries and medical authors have said on this point. Dr. Ogle (Table L of the 45th Annual Report of the Registrar-General), taking the average mortality of all males in England and Wales at 1,000, found that while the clergy had a figure of 556, innkeepers, publicans, and beersellers, had a mortality of 1,521; and public-house and hotel servants of 2,006, or nearly four times that of the clergy. Dr. Ogle adds:—"The mortality of men concerned in the liquor-traffic is appalling." It appears between the ages of twenty-five and forty-five the mortality of such persons is 22·63 per 1,000 annually, and between forty-five and sixty-five it is 53·30 per 1,000; whilst for the clergy the similar figures are 4·64 and 15·93 per 1,000 respectively. Mr. Stott, in 1876, in the Report of the Scottish Amicable Life Assurance Society, showed that the mortality of males occupied in public-houses was 68 per cent. in excess of the Healthy Males Table. Mr. F. J. Neison ("Alcohol," in his "Vital Statistics, 1857"), showed that at that date, when the number dying of a given population in England and Wales was 110·2, the corresponding number of intemperate persons dying amounted to 357. "Throughout the whole range of the table the rate of mortality is frightfully high, and unequalled by the result of any other series of observations made on any class of the population in this country." Mr. Neison further stated that at the age of twenty, whilst the expectation of life in the general population was 48·21 years, it was only 15·55 in persons of intemperate habits, and at subsequent ages—thirty, forty, fifty, and sixty—intemperance caused persons only to have 38, 40, 51, and 63 per cent. of the ordinary expectation of life. He found that the expectation of life in drinkers was longer among the mechanical classes than among the traders, longer in these than in the professional classes, and shortest among women. Dr. Grindrod, in his work "Bacchus," published in 1839, mentions that Mr. Wakley, Coroner for Central Middlesex, used to say that more than a half of the inquests he held were due to drunkenness. Mr. Thomas Wallace, F.F.A., in a paper he read, in 1888, before the Edinburgh Actuarial Society, showed that publicans had

greater temptations than innkeepers, or licensed grocers; and that, consequently, at all ages the rate of mortality was higher in these than in the other two classes selling alcohol. Thus between the ages of twenty-five and thirty-four the death-rate among the licensed grocers was 15·2 per 1,000; among hotel keepers, 16·6; and among publicans, 18·9. Averaging all the ages the conclusion was that the death-rates of these three classes were as 18·1: 26·8: 33·4. Statistics such as these are amply sufficient to prove that at any rate intemperate persons have a far worse life than other members of the community. All medical men of experience know full well the ravages caused by drunkenness. So common a cause is it of deaths in great cities that Dr. Lancereaux calculated in 1865 that one death in twenty in the Parisian hospitals was caused by drink. In this country similar statistics are not available; but the calculations of Dr. Richardson, Dr. Norman Kerr, and others, have rendered it probable that about 1,000 deaths a week take place from poisoning by alcohol in England and Wales. One lunatic asylum in France, called Quatre Maret, in Finisterre, is said to have 40·34 per cent. of its inmates alcoholic cases. The effects of alcohol on the brain, the stomach, the heart, lungs and urinary passages, fully account for this enormous bill of charges against it as a cause of death. Before the epoch of distillation in the eleventh century we find but few allusions to these grave evils caused by alcohol. Horace, for instance, who I rather suspect had injured his health considerably by his constant potations of Massie or Falernian, since at the age of forty he bids adieu to Venus and her wiles—a common enough phenomenon among modern votaries of Bacchus—speaks continually in the greatest praise of wine. In Ode xviii. of Book I of his Odes, he tells Varus that he can plant no more useful plant than the sacred vine, for the god has made all things hard to total abstainers, nor do biting cares disperse in any other manner. “Who, after drinking, worries about severe warfare or about poverty?” The poets, indeed, from Homer down to Robert Burns and Tom Moore, have incited the race to use this narcotic to assuage their sorrows; and as the Founder of Christianity (erroneously, according to Dr. Norman Kerr) was said to have set an example of partaking of wine, we need not wonder that a scientific and dispassionate discussion of the merits or demerits of alcohol has been delayed. It must, however, be noted that in former centuries (as Professor Bunge says) the masses, even in the wealthiest countries, were generally abstainers from alcohol, from necessity, and that it was only the rich that caroused, except at rare and festive occasions. The progress of chemistry has made the process of distillation so cheap and facile that it is no wonder that the evils caused by alcohol are more evident.

This brings me to the second point to be proved, *i.e.*, that even moderate daily use of alcoholic (diluted) fluids is dangerous to life and health. This point, though suspected by many able writers, was, I think, never clearly demonstrated until in 1840 Mr. Robert Warner, who I am informed is one of the Society of Friends, being desirous of insuring his life, was told that his life (being a teetotaler) was a bad one; and that he must pay 10 per cent. extra on his premiums, if accepted. Fortunately that gentleman was thoroughly convinced of the error of this decision and founded the company of which he is still the honoured chairman—The United Kingdom Temperance and General Provident Institution, of 1, Adelaide Place, London Bridge. And what do the records of this famous pioneer insurance company show with regard to Mr. Hayter's contention. Here are the latest figures kindly sent me a week ago by the Secretary, Mr. T. Cash. From the year 1866 to 1889, or 24 years, 4,542 deaths were expected to occur, and £983,307 to be paid by the company in the Temperance Section, where only total abstainers are insured; but only 3,198 deaths occurred, or but 70 per cent. of those expected, and £664,832 was claimed; whereas, in the General Section where only moderate drinkers are insured, 6,894 deaths were expected and £1,470,147; and 6,645 deaths occurred, or 96 per cent. of the expectation, and £1,428,671 were claimed. The sums claimed in each section were in a similar ratio with the deaths, nearly. Now, unless any objection can be made to the method of these returns—and I can see none—it would seem clear to any innocent mind, that moderate drinkers do not, as they think they do, ward off the inevitable hour that awaits everyone by their use of alcohol. I lay emphasis on the word “moderate,” for the Institution referred to, like all other solvent institutions, will have nothing to do with intemperate persons. In the Handbook of Temperance History, 1882, it was stated that the United Kingdom Temperance and General Institution insured 20,000 in its General, and 10,000 in its Temperance Section, and that the quinquennial Bonuses had been  $17\frac{1}{2}$  per cent. greater in the Temperance than in the General Section. This is a very different style of statistics from that of the British Medical Association Committee; where 122 abstainers were compared with 4,112 moderate and immoderate drinkers. All honour to Mr. R. Warner for his steadfastness and intelligence in founding this Institution.

The Sceptre Life Association of 40, Finsbury Pavement, London, insures abstainers and moderate drinkers in separate sections; and, according to Mr. Bingham, in a speech made by him at the 25th Annual Meeting of the Association, during the last six years, in the General Section, 569 deaths were expected, and 434 occurred, or 76 per cent. of those expected: in



the Temperance Section, 249 deaths were expected and 143 occurred, or only 57 per cent. of those expected. Mr. Bingham informs me that during the past four years total abstainers constitute nearly 50 per cent. of the insured in the "Sceptre." The method made use of by the British Medical Association Committee was utterly valueless, and was, I am sorry to say, published in a very rash manner. Mr. Bingham has favoured me with a list of all the ages at death of all the insured dying in the Temperance and General Sections of the Sceptre Life Association. In the General Section, 368 persons died, and the ages of death of these added together amounted to 18,902 years, or to 51.3 years on an average. On the other hand, in the Temperance Section, 110 persons who died had a collective age of 4,866 years, or only 44.2 on an average. Here then is the fallacy of the British Medical Committee's statistics plainly exemplified, for, in the table appended to the annual report, Mr. Manly, F.S.A., shows that at all ages of life in the years 1884-88, the General Section showed that the actual deaths were 79 per cent. of the expected; whereas in the Temperance Section the actual deaths were only 56.4 per cent. of those expected. I sincerely trust that when Mr. Hayter sees these facts, he will see that his inferences were hasty and requiring revision.

Mr. Alfred Bowser wrote me in 1883 respecting the Whittington Life Assurance Company, which also keeps a separate section for total abstainers. In 1888 the report of that Society mentioned that the death-rate in the General Section was 16.35 per 1,000, whilst it was 8.74 per 1,000 in the Temperance Section. This, of course, tells us little, as ages are not compared. The report in 1883 stated that "the mortality among those who abstain from the use of alcoholic liquors being less than among ordinary lives, total abstainers are insured in a separate section, and have a bonus in proportion to the claims made."

Accidents even are much more frequent among those who use alcohol than among abstainers, who are less rash and impetuous as a rule. Thus, the Lancashire and Yorkshire Accident Company, Limited, gives an abatement of 10 per cent., after insuring for one year, to abstainers. The London, Edinburgh and Glasgow Insurance Company has in its prospectus that "Assurers who are total abstainers from alcoholic drink of one year's standing are insured in a separate section. It being an ascertained fact that the rate of mortality of total abstainers is less than that of the general public, the abstainers derive the entire benefit, at the periodical division of profits, of their superior health and longevity." A policy-holder, who is, and continues to be, a total abstainer from alcoholic drinks, is allowed, after three years, a further reduction of  $7\frac{1}{2}$  per cent., in all making 20 per cent. by way of a bonus upon the above conditions. The Accident



Assurance Company, 10, St. Swithin's Lane, allows, in addition to other advantages possessed by non-abstaining insurers, a reduction of 10 per cent. from the commencement of the insurance on the premiums insured under that head. The British Empire Mutual Insurance Company, according to Mr. Runz, in 1888, expected twenty-four deaths in the Temperance Section, and only eleven occurred. The Abstainers' and General Insurance Company, Limited, Birmingham, insures 20,000 total abstainers. The Blue Ribbon Assurance Company, I hear, published some statistics very favourable to total abstainers' lives, before it merged into the Abstainers' and General Insurance Company.

There are at present several Friendly Societies which make it their specialty to insure total abstainers in sickness and death. These societies furnish statistics which are comparable with those of the two great non-abstaining societies, the Ancient Order of Foresters, and the Manchester Unity of Oddfellows, inasmuch as the members are drawn entirely from the same classes of society. The years of life of the Oddfellows and of the Foresters are very large, both of them amounting to figures over a million and a quarter years. The Independent Order of Rechabites, a total abstaining society, was founded in Manchester in 1830, to insure in sickness and death "persons not consuming alcoholic drinks except in religious ordinances, or when prescribed by a physician." Mr. Neison's statistics of this society extended over a period of ten years, and embraced the life-histories of 37,802 members, and 127,269 years of life. The accompanying tables were kindly sent me by Mr. R. Campbell, of 32, Lancaster Terrace, Manchester. In one table, which gives the adjusted rates of mortality per cent. at each age of the Foresters and Rechabites, I find that there is a constant difference in favour of the Rechabites, which goes on increasing from  $\cdot 134$  at the age of 20, to  $1\cdot 092$  at the age of 67. Another table shows the expected length of life of members now living at each age, and I find that at the age of 18 there was a difference of  $5\cdot 88$  years in favour of the Rechabites; at 20 the difference was  $5\cdot 73$ , and so on all through life up to the age of 73, there was a constant excess expectation of life among the Rechabites as compared with the Foresters. The same held good for the Oddfellows as compared with the Rechabites. The average sickness in the Rechabite Society has always been low. Thus, at 20, the average sickness per member was (1879 to 1883) 3 days 22 hours, against  $\cdot 66$  weeks in the Oddfellows (1866 to 1870); at 40 the Rechabites had 1 week, 0 days, 23 hours, against  $1\cdot 32$  weeks in the Foresters; and at 50 the Rechabites had  $1\cdot 4$  weeks against  $2\cdot 35$  in the Foresters; at 60 the Rechabite figure was  $2\cdot 66$  weeks against  $5\cdot 13$  for the Foresters (Neison). The *Sanitary Review*, in speaking

of these figures, mentioned that among adult males in England and Wales the mortality per 1,000 between 20 and 25 was 8·83; between 25 and 35, 9·57, and between 35 and 45, 12·48; but in publicans aged 30, it was 13 per 1,000. But, among the Rechabites, the percentage of sick during the year 1874 was 16·16, and death-rate 7·4 per 1,000, and number of days of illness on an average 5·16 per member, against 10·5 days among the Oddfellows of sickness, and a number constantly sick of 28·75 per cent. In the districts, he adds, from which the returns are full and accurate, there were 16,269 Rechabites. Had the mortality among them in 1874 been 12·62 per 1,000, as it was in the Oddfellows, instead of 7·4, as it was, 205 would have died in place of 120. And had the average sickness per member been 10·5 days instead of 5·16, the Society would have had to bear 70,938 more days sickness. Making, then, all possible allowance for errors, the Rechabites compare very favourably with the Oddfellows, one of the best-managed and largest non-temperance societies in the world.

The next Temperance friendly society I have to refer to is the "Sons of Temperance," and last week I had a letter from Mr. W. Wightman, of 9, Camberwell New Road, with a copy of their periodical, the *Son of Temperance*. In 1886 the Society was stated to be the largest teetotal Society, having at that date 110,000 adult members, 72,000 of whom were in North America. It is a notable fact that not 3 per cent. of the members leave the Order by breaking their pledges. In the London branches in 1886, 17¼ per cent. of the members were of the sick list, which represented 5½ days of sickness per member, and the death-rate was 5¾ per 1,000, less than half that of London non-abstaining Societies. According to Mr. Gomme, in 1870-75, at the age of 20 the Sons of Temperance showed, '41 week's sickness against '66 for the Oddfellows, and '91 for the Foresters: at 31 to 35, the figures were '66 for Sons of Temperance and 1·01 for the Foresters, and so on up to 61 to 65, when the figures were '73 for the Sons of Temperance against 5·12 for the Foresters. The death-rate of the Sons of Temperance (1871-75) was at all ages lower than that of the Oddfellows and Foresters, except between 61 and 65 when it was higher than these Societies from some unexplained reason.\* Perhaps this is the fact which Mr. Hayter refers to.

Mr. Crerar, secretary to the Original Grand Order of Total Abstinent Sons of the Phoenix, writing me in 1886, mentioned that from the year 1879 there had been a proportional mean of members 9,000 in 1885 with 69 deaths. The mortality was 7·6 per 1,000 annually, as against 13·6 per 1,000 among the London

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\* Probably there were very few Rechabites of these ages, since the teetotalers are younger men usually than the Foresters.

Foresters and 14 per 1,000 among the city population of the Manchester Oddfellows.

Mr. Whyte ("Does Alcohol Shorten Life?") tells us that the mortality among the clergy in this country between 1861 and 1871 between 25 and 45 was 5·96 per 1,000 and in 1880-1-2 it had fallen to 4·64; and in the ages between 45 and 65 it was, in the first period 17·31 per 1,000, and in the latter period 15·93. But he adds that the figures for the Rechabite working men had been even lower, having been 4·50 and 13·02 per 1,000 at these ages. That gentleman also speaks of the Scottish Temperance Life Assurance Society as having had only 34 per cent. deaths in the Temperance Section of those expected to occur by the healthy life tables used by insurance companies. It has to be noted that in such companies the supposed lapse of temperate members into the alcohol or general sections is extremely rare. An *esprit de corps* keeps them from yielding to temptation. And, if there do exist these higher sickness rates in some Temperance Friendly Societies in Australia they are not found to exist here; so that presumably in the colonies, older drinkers are allowed to enter the teetotal ranks without due care, which, however philanthropic on the part of the managers, is bad for the cause in the long run, as it confuses statistics.

When we compare the mortality of the Rechabites (1879-83) with that of the Foresters (1871-75), the adult males of all England (1871-80) and with that of healthy males, as drawn up from the records of insurance companies, we find that at all ages from 25 up till 65 the Rechabite mortality is the lowest. Thus at the age of 40 it is 5·094 per 1,000, against 12·080, 13·893 and 10·310 in the other tables; and at 60, it is 26·131 in the Rechabites against 33·660, 35·450 and 29·680 in the other named tables. No fault can, as far as I can see, be found with these very conclusive statistics which are so favourable to teetotalers.

I trust I may lay claim to having tried fairly to meet the charges against total abstinence from alcoholic fluids being in any way a cause of premature death, or of greater sickness. Nay, I venture to claim that the figures before us prove incontestably the contradictory proposition; and I may therefore perhaps, in conclusion, state my own opinion in the words of a much respected physician, the late Sir William Gull, who when examined before the Royal Commission is reported to have said:—"From my experience alcohol is the most destructive agent that we are aware of in this country. I would like to say that a very large number of people in society are dying day by day poisoned by alcohol, but not supposed to be poisoned by it."



## Miscellaneous Communications.

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### MEDICAL ASPECTS OF THE DRINK QUESTION.

By S. O'SULLIVAN, *Professor of Surgery, Queen's College, Cork.*

DURING the late sittings of the Conference of the League of the Cross in Cork, Professor O'Sullivan read a paper on the above subject, the contents of which deserve to be better known than the short and necessarily arbitrary summary published in the daily papers enabled them to be. Professor O'Sullivan, with a view to a better understanding of the action of alcohol, went in detail into the structure of the human body and the nature of the foods necessary for its sustenance, after which he proceeded to deal with the physiological effects of alcohol, quoting from numerous authors in sustenance of his views. Dr. T. Lauder Brunton, after pointing out the different answers to the query whether alcohol is a beneficent agent or otherwise, that will be given by the friend of a man who has surmounted fever with the aid of alcohol, and the wife of a man brutalised by drink, proceeds:—"If we inquire why persons drink it at all the answers we receive are no less contradictory. The negro, sweltering under a tropical sun, drinks to cool himself; the London cabman, shivering at his stand on a wintry morning, drinks it to warm himself; the weary traveller drinks it to strengthen his flagging muscles and help him onwards to his destination; the literary man drinks it to give subtlety to his intellect, or brilliancy to his wit; the overworked man of business drinks it to rouse him from his apathy, and give sharpness to his bargains; the gamester, quivering with excitement, drinks it to steady his trembling hand; and the man or woman broken down by misfortune, and weary of life, drinks it to drown care in temporary oblivion. Irrecon-

cilable as these answers to our questions may seem, we know that they are all more or less true; and in studying the physiological action of alcohol our endeavour must be to discover how it is that one drug can produce such opposite effects. For this purpose, then, it is necessary to 'bear in mind the three-fold action of alcohol, 1st, locally on the skin and mucous membranes; 2nd, Its reflex action on other organs through the sensory nerves of the skin and mucous membranes; 3rd, Its action on the brain, spinal cord, and other organs to which it is conveyed through the blood. The action of alcohol is modified by the degree of concentration.' Thus, when applied to the surface of the body in a concentrated form it produces a feeling of cold in consequence of its rapid evaporation; but when diluted, the evaporation being slower, the cold produced is less. Again, if we prevent its evaporation by covering with gutta-percha tissue or oiled silk, the effect will be different, for then it produces an opposite effect, that of intense heat, also modified if the alcohol be diluted. This effect, unlike that produced by evaporation, which is a physical action, is due to its chemical properties. Being no longer able to evaporate, it soaks through the outer covering of the skin (the epidermis), and acts on the blood-vessels beneath. This feeling of burning is best experienced in the mouth, where the epidermis is thinner than on the skin, and therefore opposes less the passage inwards of the fluid. After awhile the burning ceases and the membranes become white, more opaque, and corrugated. The sensation of burning and alte-



ration in the mucous membranes are due to the action of alcohol on the tissue. The white appearance is, no doubt, due to the coagulation of the albumen on the surface, and this obscures the red colour of the circulating blood beneath. Other physical agents will likewise produce the coagulation—such, for instance, as heat; but the coagulation thus produced is permanent, whilst that caused by alcohol is temporary, and can be again dissolved in water, or in the liquids of the body. The coagulation is due to the abstraction of water (for which alcohol has a great affinity) from the tissues, and when water is added, the solution of the albumen is again effected. If, however, the alcohol acts for a long time on them, their constitution seems to undergo changes, and they become insoluble in water. To this action of the tissues is due the effects produced on the various organs of the body, especially the brain and nerves, for which alcohol appears to have a great affinity, the connective tissue or binding-together structures being most affected, and the cellular elements least. It causes at first an increased growth of the former, which subsequently contracting into a hard condition, spoils the essential or cellular elements of the part, and, therefore, injures or destroys the functions of the organ. Its second action is reflex, namely, through the nervous system. At the same time that we feel the sensation of heat in the mouth a copious flow of saliva takes place through the sensory nerves of the mouth which act on the nervous centres, and, through them, on the secreting cells of the glands. The same feeling of warmth is experienced when the alcohol is swallowed, first in the gullet, and then in the stomach itself, and when it reaches the stomach, it produces there, in addition to the feeling of heat, a reflex action. It acts on the secretions and movements of the stomach. In its normal state the stomach when empty presents a pale appearance, and is covered with a little mucous. When a little alcohol is present, the blood-

vessels of the mucous membrane dilate, and it becomes of a rosy red colour, its glands begin to secrete copiously, and the gastric juice flows into the stomach in little streams. This effect produces appetite, hence the common custom of taking a nip of brandy as an appetiser. 'But appetite seems to be only an expression of slight uneasiness on the part of the stomach. It cannot distinguish sensations like the mouth, and alcohol, which on the tongue causes burning, quassia, which causes bitterness, and minute doses of arsenic or tartar emetic which would cause congestion if they stayed in the mouth as long as they do in the stomach, all cause appetite.' Food itself, when introduced into the stomach, will produce the same congestion which appears to be the cause of appetite, and we often find, when a person begins a meal without the least appetite, that he eats with zest after the first bite, and finishes with astonishment at the amount he has consumed.]

The obvious inference to be drawn from these facts is, whenever there is a deficiency of appetite at the beginning of a meal, that food is the natural stimulant to induce it, and that it would be as rational to take arsenic or tartar emetic before a meal as to take brandy for the purpose of creating an appetite. Healthy stomachs with ordinary food do not require stimulation, but it is possible that circumstances may arise in which it may become necessary. If, however, there be anything certain, it is that overstimulation of the stomach is injurious; and moreover, if alcohol be regularly used for this purpose even in small doses the stomach will become habituated to its use, and will refuse to respond to the stimulus of food alone, unless supplemented by gradually increasing nips of brandy. It so happens, in this fast-living nineteenth century, that men have often to exercise their mental and physical powers with ever-increasing energy in order to keep pace with the necessities of the times, whilst they have little time left to consider the vital question of health, "the hard-working merchant, the law-

yer or the doctor, who comes home from his counting-house, his office, or his rounds, and sinks exhausted into his easy-chair weary and worn out by a long day's work," finds the diminished sensibility of the stomach must be compensated by an extra stimulus, and he therefore has recourse to the common practice of taking the glass of sherry or the nip of brandy in order to "restore the normal equilibrium and quicken the otherwise slow and imperfect digestion." Wherein lies the wisdom of such men who thus exhaust their energies? Which in them is the graver fault—the over-taxing of their natural powers or the employment of a remedy which must of necessity, by exhausting their latent energy, tend towards hastening the fatal end, or, what is more to be feared, lead them on in moments of grief or in the hour of pleasure to excessive indulgence in its use. But if instead of taking the appetising nip of brandy a larger quantity be taken, the irritation produced will be excessive and the whole condition will be changed. "Then the rosy hue becomes pale, the gastric juice ceases to flow, whilst the slimy mucous is increased, appetite disappears and is replaced by nausea, and finally vomiting occurs. We have thus produced what most people call a bilious attack." "The large quantity of mucous present in the stomach facilitates fermentation, causing the development of various injurious substances, and amongst these is butyric acid, which causes an acrid burning sensation in the stomach, and, when absorbed into the blood, it acts as a nerve poison" (Otto, Weber and Senator)—"still farther reducing the business capacities of the unfortunate patient, which is already sadly diminished by over-work and inability to assimilate proper nourishment." "Alcohol causes an increase of the normal movements of the stomach, which are necessary to carry on digestion, and at the same time causes expulsion of gases, and thus also in many instances a little brandy is taken to relieve flatulence." But what is the final result of the practice? The stomach gets accustomed to the stimu-

lus and no longer responds to the small quantity, and more and more has to be taken to give relief, until these persons become "habituated to the excessive use of alcohol, when they not only suffer from flatulence due to the process of fermentation already mentioned, but are less readily relieved by the usual remedies." Thus we find that (1) "habitual consumers of alcohol suffer from disorders of digestion—gastric catarrh." The ferment arising from the excess of mucous, acts on the starchy, saccharine, and fatty elements of the food which undergo active lactic and butyric fermentations—"acidity, heartburn, pyrosis, regurgitation of food, and a peculiar retching in the morning (morning vomiting of drunkards) are produced." (2) The reflex effects of alcohol are first the warmth, diffused over the entire body immediately after it enters the stomach, especially when not diluted. This warmth appears to be due to two causes; primarily to reflex action of the alcohol on the heart and vessels, through the nerves of the stomach, which causes an increase of circulation; and secondly to the quick absorption of the fluid into the blood, which keep up the primary effect by special action on the nervous system and through it upon the circulation. A large dose taken at once causes immediate unconsciousness which may prove fatal. This effect, according to Dr. Benjamin Brodie, is due to reflex action, and not to the absorption of the alcohol, as the time is too short for it to take place; and he compares it to the shock caused by a violent blow over the region of the stomach, and which may also cause instant death. If death be not caused by the shock the alcohol will then be absorbed into the blood and act on the nervous centres, causing the insensibility produced by the shock to pass into alcoholic coma—a condition in which there is complete loss of consciousness, sensibility, and voluntary motion. Large doses of alcohol paralyse the heart more or less completely, but "small doses stimulate it, making its action more rapid and giving it increased force." This stimulating action of the

alcohol is the chief claim which it possesses as a remedy in certain diseased conditions. Soon after the alcohol has entered the stomach it is absorbed into the blood which first passes from that organ to the liver, and when in the blood it acts directly on its constituent parts. The red blood corpuscles which are mainly concerned in carrying oxygen to the different parts of the body, in the presence of alcohol have their power of giving off oxygen to the tissues lessened, and, therefore, the oxydation of these tissues is diminished (Harley and Schmiedeberg.) Now, if this process of oxydation is going on in a healthy way in the several tissues, the functional activity of the organs and the production of heat on the body must be lessened, and therefore its action cannot be beneficial. On the other hand, when the waste of tissue is going on too rapidly, as in fevers, the action of alcohol is beneficial, in so far as it is capable of lessening this waste. When the amount of alcohol ingested is small the accelerated action of the circulation counterbalances its injurious influence; but when partaken of in large quantity, or when the dose is frequently repeated, its baneful effects will soon become manifest—in the imperfect combustion of fat and its consequent accumulation in the tissues. "If much saccharine or other fat-forming matters be taken at the same time with frequent doses of alcohol, the subcutaneous tissue also becomes loaded with fat, as we frequently see in brewers' draymen, and if the consumption of alcohol be excessive it causes fatty degeneration of various organs."

Very opposite opinions have been held on the question of whether alcohol is a food or whether it simply circulates through the system for a time, producing the effects which I have mentioned, and is then eliminated by the various emunctories. The importance of this question is, no doubt, very great, and it must be granted that a small proportion of alcohol, within certain limits, varying of course with different individuals, and under certain conditions, acts as

a food; at the same time, however, we must also conclude that what that particular quantity is in each individual case, and under varying circumstances it is impossible always to say, and few men are able to judge for themselves, and that any excess above this limit must necessarily be injurious. When alcohol is prescribed by the physician it is essential, bearing these facts in mind, that he should watch its effect on the system in the same way as he would note the effects of an alkaloid such as strychnine ordered for the cure of a particular malady. Like the latter drug, the excess if it do not kill or cause dangerous symptoms must be eliminated. And he should warn his patient in the one case as he would in the other, of the necessity of discontinuing the remedy when the particular symptoms or conditions for which it was prescribed have disappeared. Ringer on this subject says that experience "plainly shows that for the healthy alcohol is not a necessary, nor even a useful article of diet. Varied, repeated, and prolonged experience, and the testimony of army medical men, prove that troops endure fatigue and the extremes of climate better if alcohol is altogether abstained from." We find that stimulants often relieve pain and nervous depression, but when these conditions return the dose must be increased at each attack until at length the patient becomes a confirmed drunkard. The doctor should therefore be very guarded and precise in ordering stimulants for such conditions, especially where they occur in nervous women. Of all the cases in which alcohol is said to be useful febrile diseases appear to claim the first place; but many of those cases can be treated without it, and it should never be given unless special indications arise.

The popular custom of taking alcohol for the purpose of keeping out the cold is founded on a fallacy. When a person is going from a warm room into the cold air he is tempted to take a parting glass, which, no doubt, causes the heat to go to the surface of the body. This effect is



produced by the action of the alcohol on the sympathetic nerves which regulate the vessels going to the skin, allowing them to dilate and to permit a large quantity of blood to flow through them, and thus to produce a glow of warmth. If the external atmosphere be very cold it rapidly abstracts the heat from the surface of the body, and leaves the individual much colder than he otherwise would be without the stimulant, for then the vessels on the surface would contract and, by lessening the radiating surface, preserve the natural heat of the body especially in the internal vital organs.

The lumberers in Canada who are engaged in felling timber in the pine forests, living there all the winter, sleeping in holes dug in the snow, and lying on spruce branches covered with buffalo robes, allow no spirits in their camp, and destroy any that may be found there. The experience of Arctic travellers on this subject is nearly unanimous. Dr. M. Fothergill tells an anecdote which illustrates it in a very striking way. "A party of Americans crossing the Sierra Nevada, encamped at a spot above the snow line, and in an exposed situation. Some of them took a good deal of spirits before going to sleep, and they lay down warm and happy; some took a moderate quantity, and they lay down somewhat, but not very cold; others took none at all, and they lay down very cold and miserable. Next morning, however, those who had taken no spirits got up feeling quite well, those who had taken a little got up feeling cold and wretched, and those who had taken a good deal did not get up at all; they had perished from cold during the night. Those who took no alcohol kept their hearts warm at the expense of the skin, and they remained well; those who took much warmed their skins at the expense of their hearts, and they died."

So far we have considered the influence of alcohol taken in moderate quantities, and I think it must be confessed that the disadvantages arising therefrom more than counterbalance, in many cases, their beneficial effects, especially when partaken of by healthy

individuals; and we may conclude that it is only under certain morbid conditions that this remedy can be employed with advantage. If, then, we must under such conditions consider alcohol as a food we must not forget that it is also, under other conditions, a deadly poison. When intoxication is produced, and still more, when it causes severe shock or instant death, we have evidence of its poisonous quality. The intoxicating effect is always preceded by a stage of stimulation and excitement, due probably to the effect produced on the circulation, and on the nervous structures themselves. The symptoms of intoxication are due to the paralyzing action of the alcohol on the nerve centres. "The first of these are the weakening of the mental faculties and the power of co-ordination (controlling movement). The higher faculties seem to go first — the judgment becomes impaired, while the memory and imagination are still more lively than usual. Then these faculties diminish and the emotions become more prominent, so that a man is either ready to swear eternal friendship all-round, or becomes as anxious for a fight as an Irishman at Donnybrook; is gay, mirthful, or hilarious, or subdued and lachrymose, melting into a flood of tears without any apparent cause." According to the researches of Ferrier the cerebellum, or little brain, is the nervous centre which regulates the movement of the eyes and the motions of the body with them. Alcohol removes the control of this centre, and accordingly we find double vision a marked symptom of alcoholic intoxication, "and the staggering of a drunken man seems to be dependent on erroneous conceptions of the position of surrounding objects; for he not unfrequently vehemently asserts that he is perfectly steady but everyone else is drunk, and all his troubles are owing to an ill-disposed lamp-post which went out of its way to bump him, or an evil-minded pavement which rose up to hit him on the nose." "The cerebrum and cerebellum (large and little brain) are thus the first parts of the nervous system to suffer, and



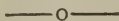
even after their functions are completely abolished the spinal cord will perform its functions—a man may be able to ride or rather keep on the saddle, although he is incapable of thinking, speaking, or walking. The medulla oblongata or upper part of the cord continues its functions after the spinal cord has ceased to act, but it also soon gives way, and, the respiration becoming gradually weaker, death ensues."

Chronic alcoholic poisoning occurs in persons long addicted to its use. In these persons alterations are produced in the digestive and nervous systems. (1) The causes of this unhappy condition are divided into the exciting and predisposing causes. The exciting causes are "the repeated direct action of the blood, strongly impregnated with alcohol, on the tissue of the nervous centres and branches, rendering them physically incapable of the due performance of their functions and the influence of an insufficiently oxygenated blood supply." (2) The predisposing causes are (a) those which are occasional, and (b) those which are constant. (a) Among the first are those conditions which expose persons to the temptation of drink; internal sensations due to illness, occupation, as in the case of workmen at breweries and distilleries; potmen and waiters, publicans, clerks and travellers for wine and spirit merchants, cabmen, coal-porters, hawkers, shoemakers, and barbers; other causes are depressing influences and various forms of disease. (b) There is a constant predisposing cause in some cases—an inherited constitution of the nervous system. The symptoms which are present in chronic alcoholism are morning tremor and subsequently persistent muscular tremors, buzzing sounds in the ear and headache; defects of sight, vertigo, want of sleep, or imperfect sleep with fearful dreams; uncertainty of purpose, causeless dread or delusions, as a belief that an enemy is constantly lying in wait to inflict injury; a feeling as if he were falling down a precipice; paralysis of common sensation, and trembling palsy, en-

feblement of mind and moral degradation, marked by cowardice and untruthfulness. In some cases insanity supervenes with a tendency to suicide, in others various forms of paralysis appear, and in others again epilepsy with dementia. I have said much, but not all that could be said on the evil effects of intemperance. I have directed my observations chiefly to the physical diseases and their moral consequences arising from the use of alcohol. But it may be said that few of the many persons who drink suffer in the way which I have described, but this is a fallacy. Those who are not drawn into the whirlpool of drink, who are moderate men, have reason to be thankful, but are never safe, for even the little which they take, when persevered in, may ultimately produce such a change in the tissues of their bodies as to induce them constantly to crave for more; and these persons, who cannot drink even small quantities without feeling discomfort, may have reason to be thankful for the delicacy which saves them. I have shown that alcohol is not necessary in health, and that it must be used with great caution in disease; but nevertheless, if we look around us and inquire, not only in our own country, but all over the globe we shall find that the consumption of drink is becoming every year more and more, and the evils arising from it assuming gigantic proportions, and that it is leading to the physical and moral degradation of mankind. The temptations to drink are multiplying, the number of drink saloons are yearly augmenting, the revenue is increasing, and the money expended in drink is threatening the credit of the nation. How is the great evil of intemperance to be arrested or put a stop to? Moral reformers may do much, and have done a great deal, but the odds are so much against them that their progress is slow; parliamentary agitation may do a great deal, but with a root so firmly fixed in a congenial soil it will take more than the present generation to eradicate it. Our great hope must be in the rising youth of the country, and if they be properly educated on this great ques-

tion there may still be hope. Men join national movements through patriotic motives, even when no ulterior benefit is likely to accrue to themselves, and do so even at the risk of personal liberty, or even of life itself. If alcohol be admitted to be the greatest foe which this country has

to contend with, should not a similar patriotic motive, if not a moral obligation, or a selfish impulse, induce men to band themselves together for the purpose of stamping out this greatest of our enemies—the evil of Intemperance?



## ALCOHOLIC NOSTRUMS AND PROPRIETARY MEDICINES.

At a quarterly general meeting of the Society for the Study of Inebriety, held on the 1st July, at the Medical Society's Rooms, Chandos Street, Dr. Norman Kerr, presiding—the following report to the American Association for the Study and Cure of Inebriety, by Drs. Roe Bradner, J. B. Mattison, and J. C. Barber, was read:—

Having addressed letters of inquiry to trustworthy authorities in several sections of the country, we received replies that establish beyond all question the fact that a great and crying need exists for the work that you have inaugurated.

Dr. Edson, Health Officer, New York, writes:—"You have a splendid field for good work against a species of fraud that is nowhere so extensive as in this country. We have a host of these things on our market, some of which are only frauds, others, however, are worse, and I believe it should be made a felonious act to put such things on the market. I have no official charge over such matters, and cannot give you authoritative statements."

Dr. Carter, Health Department, Baltimore, writes:—"We have no printed information regarding the sale of patent medicines, &c., although our city is flooded with them, and lots of so-called doctors to recommend the use of them, as we have no laws regulating the practice of medicine."

From Dr. E. A. Craighill, President of Virginia State Pharmaceutical Association, we have received valuable information, including the following:—"In my experience I have known of men filling drunkards' graves who

*learned to drink* by taking some advertised bitters as legitimate medicine. The soothing syrup for children, and the cough syrup for everybody, contain opium in some form. It would be hard to estimate the number of young brains ruined if not destroyed, and the maturer opium wrecks from nostrums of this nature. I could, if I had time, write a volume on the mischief that is being done every day to body, mind, and soul, all over the land, by the thousands of miserable frauds that are being poured down the throats of not only ignorant people, but, alas, intelligent ones too. All of these medicines known as 'patent medicines' are prepared by uncultured people, with no medical education. But there is a certain other class of so-called remedies, prepared by a more intelligent set, sometimes by physicians and pharmacists, that do a great deal more harm. I allude to the 'non-secret proprietaries' that claim to publish their formulas *but do not*. One in particular has made thousands and likely tens of thousands, of *chloral drunkards*, dethroned the reason of as many more, besides having killed outright very many. It is impossible for any one to estimate the mischief that is being done by such remedies, and the physicians who recommend them. It is impossible for any one not in a business such as I am to form an idea of the amount of misery and mischief that is being done by these same so-called 'non-secret remedies.' If I can serve you, and you will say how, I will be glad for you to command me. I would like to contribute my best effort, though feeble, to des-

trophy what I honestly believe to be one of the curses of our day and generation."

When you consider who the authors of these letters are, the position they occupy in the world of science, what they say, and that what they do say is positively true, it would seem that little could be left to be said.

We lay before you a voluminous pile of American literature, all referring to the highly important subjects, the treatment of the morphine habit and alcoholic inebriety. You are all not only physicians but gentlemen of culture, and, by reason of your long and earnest application to this very subject, are prepared to give a good opinion as to the value and truth of the remarkable statements made by the authors of these books, pamphlets, and other circulating mediums. We assert that part of what is therein said concerning the probable terrible consequences of these fatal habits is unquestionably true, but that at least ninety-five per cent. of what is said of the composition and curative effects of these opium and whisky antidotes and the abilities of their proprietors is absolutely false. You are competent judges, and if, in your better judgment, we have erred in branding them lying frauds you have only to repudiate the conclusion we have arrived at, leaving the charges and responsibility of the same upon the writer. But, gentlemen, these advertisements, these volumes of gilded falsehood, were not designed for you, nor for any scientific investigation. They were designed for an innocent, unsuspecting public, as a trap for persons who are possessed of more money than strength of mind, especially those who had either contracted the opium habit, or feared they might do so. We desire to call particular attention to this last class of people—those who are free from the disease, but whose natural nervous qualities render them prone to fear. There can be no doubt that the use of such nostrums would do more towards confirming than eradicating the habit, if it already existed, while a far worse result of their sale may be reasonably expected—namely, that of inviting and

creating addiction to an almost hopeless fatality, where the habit had not previously existed. Many persons have the same prejudice against opium that prohibitionists have of alcohol, and it is no uncommon thing for practising physicians when prescribing morphine to meet with the honest opposition of the patient, or some one in his interest, on the ground that it might lead to "the habit." We have often been told by a suffering patient that he would rather endure the pain than to "touch, taste, or handle" a remedy so dangerously seductive.

We have also met with those who had simply taken medicinal and probably judicious doses of the drug who had become frightened, almost into frenzy, by contemplating the possible consequences, as portrayed by the vile, outrageous illustrations, in the advertisements before you; manifesting the same apprehension that would be more reasonably exhibited by one who had been bitten by a rabid dog. Such people, whose name nevertheless is legion, must be of highly sensitive, nervous constitutions, and could without doubt and very easily acquire the habit; and knowing this they will buy and devour any and every thing advertised to cure or prevent the malady. Under such circumstances, and to such people, these so-called opium cures and habit preventives and antidotes are forcibly suggestive, but peculiarly dangerous. Bottle after bottle is consumed until it is found that the victim cannot live without the "cure," which is opium itself. Your committee knows of no dangerous or terrible consequences of the opium or morphine habit that might not have their origin in such nostrums, nay, a blacker fraud upon the art of medicine or a more diabolical plot to get gain could hardly be invented.

As you are aware, we undertook this work under difficulties, not least of which existed in the fact that we were unprovided with funds, or any means whatever beyond our own energy to enable or aid us in our work. It is true that we have not incurred very much expense and that we have discharged whatever costs that were



indispensable. It must, however, be evident to you, that those who are to carry on the work from the point to which we have brought it, should be provided with funds commensurate with the work and results that may be required or expected of them. How are we to determine as to suspected dangerous and poisonous properties of an advertised nostrum except by chemical analysis? We have been kindly and most potently aided by analyses made by the most reliable of chemists, employed by other individuals and associations, and we take sincere pleasure in making the following acknowledgment:—

Through the courtesy of Dr. Abbott of Boston, Dr. Tucker of Albany, and Professor Caldwell of Cornell University, we have received the result of most careful examination of many of the very nostrums we were most anxious to have analysed—including those whose virtues are heralded by the very and varied advertisements that now lie before you; and notwithstanding he adroit villiany thathas made them deceptive, and enticing to others, they are now uncovered before you, and presented in their nakedness of honesty. Dr. Abbott has furnished us with the astonishing result of Dr. Davenport's chemical examination, proving beyond the possibility of doubt that nineteen out of twenty of the nostrums most commonly sold as opium cures were composed in part of opium itself, constituting unmistakable evidence of a monstrous fraud as well dangerous evil. Upon this table you see advertisements setting forth the curative agency of certain wonderful compounds, the delights of the so-called Sanitariums whence they came, and the remarkable skill and *success* of the proprietor. There they are, behold them! Then look at this chemical analysis and you will see that each one of the whole twenty except one contains opium itself.

Here is another. Examine and test it in any way you will, and if you find it to contain anything except granulated sugar of market value not exceeding the quarter of one cent, you will do more than all the analytical

chemists who have lent us their aid. The *Druggist's Circular*, the *American Analyst*, and the *Western Druggist* are each deserving of credit for their work in the exposure of this fraud—for fraud it is; and the effect of these advertisements alone has been to dupe many people into depriving themselves perhaps of the necessities of life to enable them to save up a dollar to buy this worthless trash.

But the evil of this last sinks into insignificance when compared with that of another. We first became acquainted with this celebrated article through the mother of one of our patients, while he was under our treatment. A brief examination showed us that it was largely composed of poor vile whisky, and it was condemned before we were aware that it contained both whisky and opium.

The person who had supplied it was indignant, and removed her son from our care. A few months later in passing through the hopeless ward of a State lunatic asylum we saw our quondam patient totally bereft of mind. At the time he was deprived of our care he was rapidly improving, with promise of ultimate recovery.

One is comparatively a small fraud, and its robbery extends principally to the purse. Another, however, does all this, which is as nothing compared with what else it does. It is sold as a cure and preventive of both whisky and opium habits, and has been abundantly proven to be a mixture of opium and whisky, a more satanical scheme than we have ever before known or heard of. Certainly a course more likely to produce addiction to both alcoholic and narcotic inebriety could not be desired than the use of this concoction under the circumstances and according to the direction of the proprietors of this nostrum.

With the exception of the last-named, which is a double-barrelled weapon, all these nostrums so far mentioned have reference primarily to morphinism, and, as you would expect, there is a still greater number of concoctions on the market with the ostensible object of curing alcoholic inebriety, whereas we believe of them as of the



pretended cures of narcotic inebriety, *i.e.*, that they are more likely to foster and even engender than to alleviate or eradicate the disease.

A certain bitters which is largely sold as an innocent preparation, entirely vegetable and free from alcoholic stimulant, contains 25.6 per centum of alcohol. This we have reason to believe is a popular and favourite tonic with the gentler sex, and at the present state of our investigation, we can only guess at the number of females who have been made inebriates by means of its agency. There can be no doubt that such beverages are more dangerous, especially to refined persons, than whisky itself: just as any honest or open enemy is less to be feared than an insidious traitor. Very many who could not be induced to taste whisky, can be easily deceived into doing the same thing if, peradventure, the bait is called tonic, bitters, or even elixir, or ginger. It is true that such people must be easy of seduction, indeed, they would seem purposely blind, when they accept it more readily because it is of vegetable extraction. As we have intimated, those of the better class, at least those better educated, most often become victims of these treacherous compounds; those indeed who know that all alcohol as well as narcotic drugs used by inebriates are of "purely vegetable origin."

We do not think it advisable to burden this report nor weary your ears with the names of all these tonic nostrums, but as we have done with the opium cures, so do we with the whisky antidotes, and having given you a brief but accurate account of a few of each class, we will annex as an appendix to this report a full and complete list of twenty so-called opium cures, and fifty proprietary preparations sold as whisky cures—each one of which itself contains in large proportions the very drug, whether opium or alcohol, addiction to which it professes to cure, one actually containing 47.5 per cent. of pure alcohol.

There is another "new drug" to which we would call your attention, and we submit for your examination the full advertisement concerning the

wonderful preparation, as clipped from a recent issue of a Philadelphia paper, and which you will find on the table amongst a mass of kindred literature. We regret our inability at this time to give you an analysis of this article, but have taken measures to determine whether our suspicion as to its composition is correct or erroneous.

Our attention was also first called to this great remedy by an old gentleman who had long been under the general professional care of a member of this committee. He had been attracted by the advertisement, and placing himself under this treatment for a short time developed symptoms which in our judgment were due to opium or its equivalent. In a word, we have a suspicion that this new candidate for notoriety is a revival under another name of a too well-known but well-exposed dangerous nostrum.

In this connection we would state that our letter to Professor Caldwell, analytical chemist at Cornell University, and to the New York State Board of Health, concerning the work of our committee, with special reference to this particular subject, was promptly replied to, *viz.* :—

"Just what power the Board of Health has in the suppression of the sale of these articles I cannot say, but since it was at the special request of the Secretary of the Board that I made the examination referred to in your communication, he undoubtedly felt that something could be gained by exposure of the fraud even if no further steps could be taken. As for myself, I can say that I shall be only too glad to be put on the track, by you or any member of your association, of any such suspicious nostrums as the one that you mention, and to report my results to you, although such results should be held primarily as the property of the Board of Health, whose official I am, and should appear as a part of my monthly report to that office; this would not, however, prevent your making such use of my results as you could for the good cause in which you are working."

Alcohol and opium have as a matter

of course produced the most of inebriety; together, they compose the arch enemy to mental equilibrium, and have received as they deserved the greater part of our attention. But the scope of this subject is too large to be even explored at first attempt. We must of necessity leave the subject unfinished, and as time presses we are nearly ready to do so, without having even named chloral, cocaine, chloroform, or tobacco.

Insanity, palsy, idiocy, all forms of physical, moral, and mental ruin, have followed the sale of these nostrums, through and throughout our broad land. New remedies, elegant specimens of pharmaceutical science, are daily added to the above list, notwithstanding they are recommended by physicians and praised by medical journals.

Surely the time has come for someone to cry halt; and if any legislation or other means of lessening, if not eradicating, the evil can be effected, now is the time for action. This association has made the initial step, and having taken the "bull by the horns," should never yield nor suffer the just cause it has espoused to be strangled by brute force by emissaries and agents of charlatans and proprietary nostrums; altogether constituting a powerful antagonist, and rich of blood money the price of numberless bodies, minds, and souls.

APPENDIX "A."—This committee is indebted to Dr. S. W. Abbott, Secretary of the Massachusetts State Board of Health, for the following results of analyses, made by Dr. Bennett F. Davenport, State Analyst of drugs, showing that forty-nine different proprietary preparations sold for special usefulness in the reformation of intemperate habits, all and each contain alcohol itself in the following proportions:—

No.	Per cent.	No.	Per cent.	No.	Per cent.
1.	35'	18.	19'7	34.	Acid.
2.	7'65	19.	25'2	35.	6'1
3.	22'	20.	17'9	36.	27'9
4.	20'7	21.	27'1	37.	35'
5.	29'3	22.	6'	38.	47'5
6.	7'	23.	33'2	39.	13'1

No.	Per cent.	No.	Per cent.	No.	Per cent.
7.	13'2	24.	21'4	40.	21'5
8.	19'6	25.	16'1	41.	29'
9.	23'2	26.	22'2	42.	11'4
10.	16'5	27.	25'6	43.	6'1
11.	41'6	28.	12'	44.	35'7
12.	19'5	29.	44'3	45.	21'5
13.	29'2	30.	20'5	46.	18'8
14.	22'3	31.	14'9	47.	13'6
15.	17'1	32.	18'1	48.	20'3
16.	16'5	33.	22'4	49.	18'5
17.	42'6				

#### DISCUSSION.

Dr. JABEZ HOGG said this was a very valuable report of a mode of poisoning by opium or alcohol insidious by being sold under another name. He had examined a number of similar preparations in England, and also some which had been imported into this country from America. They should be classed as poisons. Most contained between 20 to 40 per cent. of alcohol, many with opium combined. Beef alcoholic preparations were also injurious. In the United States much greater energy was shown in combating with inebriety than with us.

Mrs. L'OSTE drew attention to a preparation which was alcoholic, and which was used by ladies.

Mr. F. J. GRAY said, he was frequently asked, "Is there any medicine which will take away the appetite for drink?" He could only reply that there was not, and that inebriety was a disease necessitating a long period of seclusion from alcohol and medical treatment. These proprietary alcoholic so-called remedies were really confirmative, and not curative.

Mr. WM. GOURLAY, with reference to a proposed Government stamp, thought that this would give a sanction and quasi-certificate of merit (as it were), which might induce the public to think the articles sold were genuine and fit for use.

Dr. PARAMORE thought that the Pharmaceutical Society might deal with this subject.

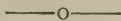
Dr. H. W. WILLIAMS believed that there was no nostrum or cure for inebriety, but that it must be treated as a disease.

The PRESIDENT characterised the report as interesting and valuable. He had known a great deal of mischief wrought in England in this way. Persons with an inherited but as yet undeveloped tendency to inebriety, had innocently taken reputedly innocuous and useful patent preparations, really containing alcohol or opium or both, and had thus become inebriates by inadvertence. Reformed inebriates also had relapsed from the same cause. He threw out the suggestion that the Government might be approached to see if they would insist on the exact composition of any proprietary article

of medicine or medical preparation being printed on the covering or on the bottle. Persons would thus know what they were taking. This would at all events diminish the risk of becoming an inebriate by accident.

It was resolved on the motion of Mr. Gray, seconded by Dr. Williams:

"That as much inebriety is caused by the use of alcohol and opium, under the insidious form of so-called patent medicines and 'cures' for intemperance, this society is of opinion that no proprietary medical preparation should be allowed to be sold unless its composition is printed on the cover."



#### DR. B. W. RICHARDSON IN DUBLIN.

DR. BENJAMIN WARD RICHARDSON, having agreed to visit Dublin in October last, as the National Temperance League's representative at the Father Mathew Centenary celebrations, the United Temperance Council invited him to a public breakfast, which was held on Tuesday October 14th, in the Hall of the College of Physicians, Kildare Street, Dublin, kindly granted for the occasion. Dr. Lombe Atthill, President of the Royal College of Physicians, occupied the chair, and amongst those present were:—

Mr. Henry Grey Croly, President of the Royal College of Surgeons; Sir Wilfrid Lawson, Bart., M.P.; Mr. Jeremiah Jordan, M.P.; Sir G. Owens, Rev. P. Keating (London), delegate representing Cardinal Manning and the League of the Cross, Mr. J. H. Raper (London), Sir Robert Jackson, C.B., Sir George Porter, Sir William Stokes, Rev. Father Nugent (Liverpool), Professor Barrett, Mr. Henry Wigham, Mr. Charles Wakely (London), Mr. T. Willson Fair, Mr. A. J. Nicolls, LL.B, and nearly 200 others, including about fifty physicians and surgeons, and a number of clergymen of different denominations.

His Grace the Archbishop of Dublin, the Most Rev. Dr. Walsh, in a letter explaining his unavoidable ab-

sence, wrote—"It would have given me great pleasure to meet Dr. Richardson. Even in the little I have been able to do for the promotion of the temperance movement, I have derived most important help from his writings."

After breakfast,

The CHAIRMAN said he had great pleasure in introducing to the meeting Dr. Richardson, a gentleman who was well known as an earnest and able advocate of the good cause of temperance, to which it might be said he had devoted his life. The College of Physicians had departed from its usual custom in granting this hall for the purposes of this breakfast. The custom of the College was to reserve its halls for the meetings of the College, for the meetings of the Academy of Medicine, and for the meetings of societies whose proceedings had a bearing on the science of medicine, and for no other purposes. That the College had granted the hall to the Temperance Council he looked upon as a tribute to Dr. Richardson for the great and good work in which he had been so earnestly and so zealously engaged, and which he had come such a long distance to advocate. He was sure Dr. Richardson would receive a cordial and hearty welcome from the meeting. It was not his (the

Chairman's) intention to occupy their time for more than a few minutes, for there were other speakers of greater importance to follow him, but at the same time he did not think it would be right for him to sit down without saying a few words bearing on the cause of temperance. It was right that he should say he was not himself a total abstainer, and that he did not, as a rule, urge total abstinence on his patients, first, because he looked upon it as in many cases useless to do so; and, secondly, because he looked upon alcohol as given by the Giver of all good, who had also given tea, opium, and other things which were, like alcohol, often abused. But, short of that, he was in favour of temperance, and, in every way, both by precept and example, he endeavoured to encourage it. The advocates of temperance, or some of them, at least, thought it right to carry on the warfare against alcohol in various forms, and under various circumstances. Some of their attacks were very effective, and some of them were injudiciously conducted, and they failed. For instance, he had heard members of the medical profession spoken of harshly for having ordered alcohol and wine for their patients, a thing that they considered necessary to do. He had been spoken of in strong language himself. Such language, he thought, was a mistake. Medical men were well educated; they were all thinkers, and if the advocates of temperance wanted to carry their point with them they must argue, and strong language, bordering on abuse, was not argument, and it would not convince. Although he said this, and although he believed the medical profession acted judiciously with regard to the use of alcohol and wine, yet he was far from saying that they were altogether blameless. On the contrary, he believed that in former times they did a great deal of harm. Some twenty or thirty years ago there was a regular *furor* in favour of alcohol and wine, urged on to a great extent by the influence of a well-known London practitioner, now dead, who formed an undue estimate of the value of alcohol, and ordered it on almost all occasions.

His pupils were also taught to order it, and his example was followed by practitioners throughout the country, with the most lamentable consequences. He could relate cases in which he believed that lives had been destroyed through that unfortunate practice. All that was, however, changed now. No educated medical man now thought of ordering alcohol indiscriminately, and without due consideration. When alcohol or wine was believed to be necessary, the exact quantity to be taken, as well as the time at which it should be taken, was stated. For himself, he seldom ordered the use of either, and when he did he prescribed the quantity and the time at which it should be taken. Above all, he impressed upon his patients that wine or spirits should not be taken early in the day, and that neither the one nor the other should ever be taken without food. He had been spoken to by members of his own family to limit the length of time that whisky or wine should be administered, but that depended upon circumstances, and it was not always possible to do it. He would impress upon the junior members of the profession to carry out practically the limitation in the use of either wine or spirits which he had alluded to. He believed they were in the habit of doing that to a great extent. There were probably in the profession a few practitioners who ordered either spirits or wine because their patients liked it. But there were black sheep in every profession, from the Church downwards, and those gentlemen were not worthy examples of their profession, and no such practice was known to the profession as a body. A word as to the medical aspect of the question. The public were under the impression, and are under the impression still, that wine makes blood, and that wine and alcohol give strength. On this point he recalled a statement made to him by an old lady some years ago. She was in the habit of taking a glass of sherry at night, and he asked her to give up the practice. To that she replied that if she did she would lose her strength. He could not help laughing at her reply, and he told



her that she was mistaken. The medical profession did not teach that wine, beer, porter, or spirits, produced strength; and he would add that all the claret in the universe would not manufacture one drop of blood. But these things could only be taught to the public by slow degrees; by slow degrees they would percolate down to the public mind. On one point he wished to be emphatic. Alcohol given to children was always injurious, and its use in that respect ought to be strictly prohibited. He could not sit down without saying a word with reference to the great and good man the centenary of whose birth had been celebrated the previous day. He remembered Father Mathew, and he remembered his work. Thousands—millions—took the pledge from him. Many relapsed, but many held on to the end of their lives, and the good work which he set a-going had never entirely subsided. Temperance had increased, and he (the chairman) had no doubt that the great meting which had been held the previous day in Dublin would have a great influence for good.

Dr. RICHARDSON, who was very cordially received, said it was the custom of those who were placed in the position he was placed in that morning to say that it was one of the proudest positions of their lives. He might say that, but he should like to say more. He should like to say it was one of the happiest moments of his life; and he should like to say more still—that it was one of the most grateful moments of his life. He must express gratitude for the health that had sustained him now for sixty years. In fact, he could only recall one serious illness in all his life, and that was connected indirectly with this beautiful country. During the famine years he was a student in Glasgow, and many of the poverty-stricken of Ireland were brought to that city and left on the wharves and quays to be carried into the hospital. He was a stripling himself when he entered St. Andrews Hospital as a student, and one of his comrades, the house surgeon, died,

and great pressure was put upon everybody to attend the sick. Young as he was, he was sent out to attend many poor women in the pains and perils of childbirth. One day he was sent down to a place which was something like a cellar, and there he found an Irishman lying in fever, and his wife by his side in fever also, and about to give birth to a child. He knew the place was pestiferous, and he knew his doom was sealed. He knew there was no escape from the pestiferous atmosphere. He was about to turn away, but he recollected the words—

“Cowards die many times before their death;  
The valiant never taste of death but once.”

He set himself to his task, and there was brought into this world a child partaking of the same fever from which the mother suffered. He went home knowing that he was smitten with the disease, and he lay for fourteen weeks on a bed of fever; but he recovered in time, and from that day he had never been afflicted with pain or sickness. That child was born with fever. But mark the good result that sometimes comes out of apparent evil. When he first came to London to practice he saw an advertisement of a medical society of London offering a prize for the best essay on diseases of a child before birth. The recollection of that child came back upon him; he studied the subject carefully; he wrote an essay and he gained the prize. Another cause for gratitude in the course of his professional life was that he had seen what very few had seen—two of the greatest advances in medicine—namely, the discovery of anæsthetics which rendered operations painless, and the development of sanitary science to such an extent as almost to cause medicine to tremble in its presence. He now came to another phase of his life which he looked upon with still greater pleasure, and that was his connection with this great cause of temperance. He was led into the cause in a

different way to Father Mathew, for Father Mathew seemed to have been filled with a divine enthusiasm for his work, and to all seeming he was inspired and brought into the world with a mission to accomplish that work. He (Dr. Richardson) was employed simply as an instrument of the British Association for the Advancement of Science many years ago to make some investigations upon the action of certain medicines on the human body. After these experiments, the result of which the medical profession well understood, it was suggested that he should take up the alcoholic family. He did so, and the result of his investigation was to elicit the facts that alcohol did not warm the body but cooled it; that it did not give tone to the muscles, but that it rather relaxed them and reduced their power; that it introduced into the human system a distinct element of excitement which was followed by muscular depression, the muscular depression itself being followed in turn by complete paralysis of the whole body. He had, therefore, come to the conclusion that alcohol was not proper for the human body as a food or strength-giver, and that altogether it was an absolute mistake and blunder to use it as a beverage. He was not original in this, for several great Dublin physicians, whose busts he saw in that hall, had arrived at similar conclusions. Again, they would find in the records of some of the Arctic voyages, such as the records of Captain Parry, Dr. Rae, and others, that these conclusions were borne out by them. They stated, with regard to the effects of cold in the Arctic regions, that cold and alcohol went together and produced the same depression, that life in the Arctic regions was only tolerable when alcohol was excluded. It was by the pursuit of experiments from that time that he was able to influence the world of science and medicine in the way it was his good fortune to do. But he went a step further than this. He found quite early in life that a certain number of people came to the hospital

for diseases of the chest, and these cases came under his care. They were for the most part people of forty or fifty years of age, and they were suffering from a peculiar form of consumption, which he found ultimately came from one cause—they were all inebriates, and the disease was due to alcohol. This disease of the lung from the use of alcohol he named alcoholic phthisis. There were other diseases traceable to the same source. He then made experiments on some of the lower animals, which he placed under the influence of alcohol, and he was astounded to see the rapidity with which alcohol produced disease, and certainly the results were fatal. When he learned that all this had been working for years he began to ask himself the question if these were facts—and they were not denied—what ought he to do? For his own sake, for his own self-preservation—the most selfish of all motives—what ought he first of all to do? The answer was, abstain, and he had abstained. For nearly twenty years he had continued that process, and always with perfect satisfaction of its value, and with the feeling that the health and strength he maintained at his age had been fostered and maintained more by that influence than by any other. Then he went one step further. Having got at the truth, as it seemed to him, and finding no adversary who could controvert the facts which he discovered, he felt it his bounden duty to come out of the cloister of science and tell the world all he had learned and believed. There was a little cloud at first in the medical world when he brought out these views. He was not quite so popular then with his brethren as he had been, and some thought it was a fancy or passing dream that would fade away. But day by day he had seen the medical profession coming to recognise these views of his, and now he was in the proud position of being president of a medical association of total abstainers which had branches in the three kingdoms, one of which

was presided over by Surgeon-General Gunn, and of another to which Mr. Croly had given his adhesion, and he saw in their combined forces they had no less than 540 medical men under their standard and fighting the same battle. He thought this was good work, and he believed it was the duty of every medical man to move in the same cause. The medical men physically held the key of the position. The chairman had spoken about the administration of alcohol in disease. Now he never had gone so far as to say he would not administer alcohol in disease if he thought it necessary and useful. If he wanted to relax a muscle he would use it, and under other circumstances he would use it in moderate quantity, like any other drug. But he did not prescribe it in those unknown quantities, beer, gin, whisky, and wine, because he knew the tricks of the trade too well. There was a mixing book that went among the trade. He had read it, and he had no confidence in that which they called wine and beer and spirits. He knew not what was mixed with alcohol when it went from the trade to the patient, so he followed this simple remedy—that when he wanted to prescribe alcohol he prescribed the real Simon Pure itself. He put it down as he would any other drug, and he knew well that when the prescription was no longer wanted the patient could not and would not use it. That was the true scientific way of dealing with it, and they would never regret prescribing alcohol in that form. It was their duty to follow up this question as medical men, and he felt proud to stand in the hall of that college and declare his faith. There were 50,000 persons in the United Kingdom who died annually from alcohol, and that yielded 150,000 months of disease at the very lowest. Was there any other disease so bad in itself? No. Pulmonary consumption came next, and it destroyed 5,000 less a year. Cancer destroyed only 15,000, and the various kinds of epidemic taken altogether could only produce twice the number

of deaths produced by alcohol. They, as medical men, knowing the terrible results produced by alcohol, ought, as administrators of health, to be the first to wipe out what they knew to be a great blot on their civilisation. If he could he would tell them the gratitude he owed to the president, to the college, and to his friends assembled there, for this remarkable distinction. He would tell them how it would help him in his career, and how it would help the cause of temperance; but he stood actually overwhelmed and benumbed, and all he had to say, and all he could say, to them that poor as he was he was a beggar even in thanks.

Mr. H. G. CROLY (President of the College of Surgeons) proposed a vote of thanks to Dr. Richardson for his address. After expressing the pleasure it gave him to be present at such a gathering, he said with regard to the effect of alcohol on disease that was not a question which they could go into at a meeting like that. Every physician and surgeon must be left to exercise his own judgment, and the responsibility would lie upon him. As to directing a patient to take only a certain quantity of liquor at such and such a time and not at others, did they not often find the doctor's orders disregarded, and extra doses put in, and the alcohol taken at times when it should not be? It used to be the practice in the case of operations to administer stimulants, but it was found that if other nourishment was given the patients, such as beef tea, &c., and stimulants were not given, there was less reactionary fever and less disturbance in the organs. The medical profession had in view the advancement of science, and in what way could they advance science more than by joining their ranks, taking part in such meetings as that and keeping down intemperance, and so making and bringing happiness into the homes of the people.

Sir WILFRID LAWSON, Bart., M.P., who was received with applause, seconded the vote of thanks with great pleasure. He said many of them might remember his lamented



friend Mr. A. M. Sullivan, one of the best friends of the temperance cause that Ireland, or any other country, had ever produced. Mr. Sullivan had told him a story which was not without point in reference to the use of alcohol. He was climbing an Irish hill when he sprained his ankle. The guide who was with him produced a bottle of whisky and rubbed a portion of the whisky on the injured part. After a while the guide turned and said to him, "Sure, Sir, are you now better?" to which Mr. Sullivan replied that he was. The guide, laughing, said, "Sure, Sir, it would be a long time before lemonade would have done that for you." Now, the point was this—that that was the right thing in the right place. The good creature of God had found its proper locality on that occasion.

The vote of thanks was then put to the meeting and passed by acclamation.

The second chair having been taken by Surgeon Croly,

Dr. M'DOWEL COSGRAVE moved a vote of thanks to the chairman for presiding.

Mr. JAMES RAPER seconded the motion, which was passed, and

Dr. ATTHILL, acknowledging the compliment, said the College of Physicians had been established for the promotion of public health, and in no way could it promote the public health better than by furthering the cause of temperance.

The proceedings then terminated.

#### "PHYSICAL STANDARDS OF ABSTINENCE."

On Wednesday evening October 15, Dr. Richardson delivered a lecture in the Round Room of the Rotunda on the subject of "Physical Standards of Abstinence." The proceeds of the lecture were devoted to the Father Mathew Statue Fund.

Dr. THOMAS, Coroner for Middlesex, in moving Mr. Croly, President Royal College of Surgeons, to the chair, said that, as a medical man, he had been much struck with two things that took place during this Father Mathew centenary celebration—they had the Pre-

sident of the Royal College of Physicians presiding at the breakfast given in their hall, and now they had the President of the Royal College of Surgeons taking the chair. Two such eminent men, representatives of the profession in this country, taking an active part in the temperance movement was a matter of great gratification to those who have been working so hard for many years on these lines. Those who advocated temperance were glad to receive the warm support of the medical profession, for they had unbounded opportunities of teaching the great lesson of temperance. If they, headed by these eminent men, took the cue on this occasion, and, instead of advocating the use of stimulants, deprecated them as a beverage, he was sure it would add greatly to the temperance cause.

Sir CHARLES CAMERON seconded the motion, and expressed the pleasure it gave him to see a member of his own college presiding on that occasion.

Mr. CROLY then took the chair, and was received with loud applause.

Dr. RICHARDSON then proceeded to deliver his lecture. He opened with a passage from Sir Francis Bacon—"The past deserves that men should stand on it for a while to see which way they should go. But when they have made up their minds, they should hesitate no longer, but proceed with cheerfulness." The past on which he (the lecturer) would look for a moment, and ask his audience to look, was the past of Father Mathew, his work, and the basis upon which it rested on its physical side. They might then all proceed with cheerfulness. The brilliancy of the thought and time of the great celebration had, like all human things, ceased; the meridian brightness had lapsed into the quietude of evening. Let him touch the vesper bell, and invite them to repose under gentle and healthy remembrances of all that had been done, so that they might wake renewed and refreshed for the work that yet lay before them in the promotion of temperance throughout the entire world. Father Mathew was much assisted in his mission by the physical



lessons that had been prepared for him by his predecessors, especially by the distinguished physician, Dr. Cheyne, of Dublin, to whose labours the lecturer paid the warmest tribute, and that physical foundation which Father Mathew proclaimed might be turned into a kind of decalogue, which, collated from his biographies, ran as follows:—

1. Alcoholic stimulants are unnecessary for man.
2. Alcoholic stimulants are injurious to man.
3. Intoxication from alcoholic stimulants is an odious and disgusting vice.
4. Much poverty and crime are born of alcohol.
5. Much disease and death are born of alcohol.
6. The man, woman, or child, who abstains from alcohol is safe.
7. The man, woman, or child, who does not abstain is unsafe.
8. The drunkard can only be cured of his vice by total abstinence.
9. There is redemption in the pledge of abstinence, even for the confirmed drunkard.
10. The world delivered from alcohol would be a reformed world, an earthly paradise.

This decalogue might be set up in our schools. Each sentence of it is a standard—a physical standard—of total abstinence, and it would be his (Dr. Richardson's) duty to comment upon each from the modern light that could be thrown upon it in confirmation of its value. The lecturer showed that alcoholic stimulants are not in the natural scheme of life and living action. If they were, all living creatures would demand them, and not the mere fraction of men alone who have learned to use them. Practically they do not exist in any sufficient quantity even for human wants until they are artificially manufactured; they form no part of the living healthy body; they play no proper part for the body; they are neither food nor drink; they seem to resemble water, but they have none of its properties. They do not quench thirst. They resolve no food into digestible form. They give no sustain-

ing power. Mixed with water they seem to sustain, but now we know it is the water that sustains, and that alone. We have learned in these days the vital power of water in sustaining animal life, a fact known for ages in respect to plants, but which in regard to man was not suspected till our own time. Under the second head Dr. Richardson pointed out the injury inflicted by alcohol on the common actions of life in organised beings. He explained how it blurred the senses, reduced the animal warmth, reduced the strength of the muscles of the body, made easy labour hard and endurance short; how it enfeebled the mind, destroyed decision, destroyed precision, caused premature failure of mental grasp; and all through kept the mind on edge, variable, irritable, worried, and wounded without cause. On the effects of alcohol in causing intoxication the lecturer dwelt from two points of view, the individual and the national. A nation, after all, was no more than a man multiplied, and all the evils of a household tainted by drink are the type of the evil of drink in a nation. The violence, the passion, the unreason of the inebriate, were strongly shown, and a passage was read from Dr. Walmsley's late Essay on Chronic Alcoholism, which in vivid terms depicted the precise effects of inebriety. Truly, continued the speaker, alcohol is a fountain of vices. It begets falsehood, it creates deception, it cultivates selfishness, it feeds despair. The question of poverty and crime from alcohol, Dr. Richardson passed over shortly (for that was everybody's theme), in order to deal more fully with the subjects of disease and death from the great destroyer. Alcohol is a law unto itself, and in the brighter future physicians and historians would marvel that such law could ever have been. Dr. Cheyne's observations on the number of diseases caused by alcohol were related, and the three classes of disease, the unsuspected, the known but concealed, and the openly pronounced, were particularised. The unsuspected were those revealed by our insurance tables;

the concealed were those marked in our published returns of causes of death; the pronounced were those which all could see and which could not be concealed. Altogether these diseases, alcoholic in essence, could not lead in these United Kingdoms to less than 50,000 deaths per annum, with three times that number of months of sickness, suffering, and the enforced idleness of the sick-room. How surely the action of alcohol tells on the mortality is shown by this convincing lesson, that of all causes leading to a high mortality, proximity to alcohol holds the first, and, conspicuously, the leading place. The last topic led naturally to the question whether abstinence is safe. If it was not, then it might be wise to bear its evils rather than give it up. But it is safe. All the living creation, except the comparatively few men and women who indulge in it, are safe without it. In their first days the members of the human family lived without it. In all their days millions of the human family lived safely without it, and, up to the ripe period of even one hundred years, both men and women have lived without even tasting it. In a word, nothing but the artificially-made desire for it calls for it, and herein lies the truth of the next standard — that anything short of total abstinence is unsafe. This is the greater truth. To learn the use of alcohol is like a passion such as that of gambling, like learning a language, like learning a trade. It forces a new constitution; it produces a new type of nervous system. It changes the body so certainly that a good pathologist could produce from a body the character and almost the time of its action, although in life he had never seen or known its victims. Unfortunately, too, when this alcoholic constitution is once formed, it, too, becomes a law unto itself. Desire is fire, and the fire consumes both body and mind: education fails to quench this fire. Every effort, every diversion, fails, until the prime cause is totally removed. The eighth standard declared that this confirmed constitution from alcohol can only be rectified by abstinence absolute and perfect, and

this standard is one of the truest of all the series. Twenty years of close observation, said Dr. Richardson, have proved to me that for the inebriate there is no cure short of total abstinence. Substitutes for alcohol are useless, treacherous, dangerous. They suggest doubts on the mind of those who prescribe them; they sustain faith for the evil in those for whom they are prescribed; nay, abstinence itself can only be effectual by slow degrees persistently maintained under good social influences; actual eradication of the poison from the body, and forgetfulness of the action of the poison on the body and on the mind. Treating on the effect of the pledge, Dr. Richardson argued that the pledge is good in spite of the fact that it is often broken. It differs in its effect according to the differences of race and environment, but it is called for during existing circumstances. In a strict sense nature, with her usual wisdom, administered the pledge to all her children, for are we not all born abstainers? and when that truth is acted on then the pledge may die. Till then it is good and useful. Dwelling on the last standard, Dr. Richardson expressed that it is impossible for the mind to conceive what would be the glory of the earth if the use of alcohol were abolished. Think of the millions of revenue now flung into its consuming fire as applied to feed, clothe, educate, and decorate humanity — to beautify home, city, country, world. Think of one-tenth of the days of death and three times that number of days of sickness saved to mankind! Think of nine-tenths of worse crimes removed from our midst! Think, from our little spheres of observation and experience, of the homes that have been changed from disorder, sorrow, and misery, to order, comfort, and happiness, by abstinence; and then apply that same observation, that same experience, to nations, which, after all, are nothing more, nothing less, than homes miserable or happy. In conclusion the lecturer said: The past deserves that men should stand on it for a while to see which way they should go. We have stood and

looked; let us go on with cheerfulness. And now, as the thunders of this great and unsurpassed temperance celebration subside into silence, to lie latent for a hundred years and be heard no more, even no echo, till we are no more, permit me, with all solemnity, with all respect, with all affection, to offer, as it were a benediction, this practical admonition — that in the work of wonder, hope, courage, inspiration, left to us by the Apostle of Temperance, to sustain and to uphold to certain victory — that human soul, gentle or simple, learned or unlearned, will honour Father Mathew most faithfully who picks up and wears without shame or confusion the mantle he has cast us from the skies.

Surgeon J. R. NIXON, in proposing a vote of thanks to Dr. Richardson, said that he had given his services freely and gratuitously to the cause of temperance, and Dr. Richardson was entitled to their gratitude for his great tribute to one of the greatest Irishmen who ever belonged to the nation.

Surgeon-General GUNN, in seconding the resolution, said that the advocacy of total abstinence in former years was left to reformed drunkards. Science ignored it. But now they had great scientific men like Dr. Richardson coming forward and espousing the cause. He did not think they ever heard a lecture which combined so much science and simplicity as the address of Dr. Richardson, and he hoped the address would be printed and circulated broadcast over the country.

The resolution was passed amidst applause.

Dr. Richardson briefly replied, saying that it was a great delight to him to see what he had seen and hear what he had heard during his visit to Ireland. He hoped that the celebration of the Father Mathew anniversary would have results which would extend even beyond the cause of total abstinence, and he was

quite sure that the reverberation of the sounds which they had heard on Monday would pass over to England and have a saving effect on the English community.

Surgeon CROLY having left the chair, and the Rev. Father Keating having taken his place, a vote of thanks was passed to Surgeon Croly for presiding.

Surgeon CROLY, in reply, said no persons felt more the evils of intemperance than medical men, and they felt that the profession was responsible for a great deal of the habits of the people in general. He felt, especially in later years, that a great responsibility rested on him in prescribing alcohol for his patients. Of course, they did not interfere with the rights and privileges and duties of the profession, because the responsibility still rested upon them for what they did. Was alcohol a necessary part of the daily food of a healthy individual? He unhesitatingly said it was not and that was a good starting point. If a man was in good health, and could take his food and sleep well, he said without hesitation that alcohol was not in any way necessary. Medical men, as well as laymen, made this mistake; they said, How can a man work hard if he does not take stimulants? That was not the question, but how can a man do work if he takes stimulants? The man who does not take alcohol has a better appetite for his food. The people to begin temperance with was not the confirmed drunkard, but the young children, and, as drunkenness was hereditary, there was greater necessity for keeping drunkards' children far away from drink. He believed Lord Wolsley was a thorough believer in strict sobriety, and he had found in his campaigns that the men who did not drink were capable of enormous fatigue.

The proceedings then terminated.



## ALCOHOL IN CHILDHOOD.

THE Church of England Temperance Society (Junior Division) has rendered a great service to the movement by the publication in pamphlet form of an extended report of the two conferences held by the Society in June last at the Church House and Sion College, under the presidency of the Bishop of London and the Duke of Westminster.

The secretary mentioned at the conference that he had on the previous Saturday addressed reply post-cards to 500 members of the medical profession, asking whether they agreed with the following declaration:—"I fully agree with the principle that alcohol is not necessary or desirable for children as a dietary, but should only be used by them under medical advice." He had already received in reply about 300 answers in the affirmative.

The medical testimony given in speeches and letters was very important, as will be seen from the following quotations:—

SIR HENRY W. ACLAND, Bart., K.C.B., M.D., F.R.S., Regius Professor of Medicine, Oxford:—"Alcohol, except in the mildest of possible ways, was not only unnecessary for children, but thoroughly injurious; and he would say, so far as his knowledge went, there ought to be ample evidence to prove that in cases where it had been constantly given to children it was perfectly obvious that it was distinctly injurious to children, and, therefore, that was thoroughly proved. The question to be raised in the afternoon as to the use and abuse of alcohol producing inherited and constitutional injury in children, was one of the most difficult and profound questions of the day."

SIR HENRY THOMPSON, F.R.C.S., Surgeon to the King of the Belgians:—"I must deny myself, I confess unwillingly, the opportunity you are good enough to offer me, of expressing in public an opinion concerning the employment of alcoholic drinks in the dietary of children. My opinion may

perhaps be recorded here, and it is based on wide experience, that during the earlier years of life the practice in question is invariably undesirable, indeed, more or less injurious. If alcohol be taken at all during childhood and youth, it ought to be under the sanction of high authority, and should be regarded by the child, as well as by his friends, as a medicine, not as an article of diet, under which latter denomination no child should be permitted to regard it. He will learn soon enough that many forms of it are taken as a luxurious adjunct to diet, but he is badly trained if he does not also learn that habitual indulgence in the habit surely produces more or less serious defects in almost all constitutions. Ill-health in later years is largely due to a life of conformity to the error of regarding alcohol as a necessary article of diet, and one of the first duties of a parent is to secure his offspring from needless evils of that kind. I say nothing of the moral evil associated therewith, not less but more important. I will only add that were it within our power to rear the rising generation with the same view and with the same care we entertain when breeding the lower animals—viz., for the purpose of cultivating all their highest qualities, and thus of improving the race, I am certain that no alcohol would be permitted to enter into the scheme of our dietary, or ever be regarded as either food or medicine suitable to be frequently taken at the caprice of the individual."

SIR ANDREW CLARK, Bart., M.D., F.R.S., President of the Royal College of Physicians:—"I fully sympathise with you in your view of the supreme importance of temperance work among children. Religion, education and temperance, constitute the three closely related and necessary agents for the building up of a completely developed and healthy human being. There is room for difference of opinion concerning the place, power, and use of alcohol in adult life; there is none in



respect of the life of children. The habitual or frequent use of alcohol in their diet is a serious and unqualified evil."

Dr. HACK TUKE, Examiner Mental Physiology, University of London:—"I am strongly of opinion that, while alcohol may properly be employed for even the young under medical direction, it is highly undesirable to allow it to be used in any form, as a beverage, by the young of either sex. I have acted on this principle in my own family, and should suppose there is not much difference of opinion in the medical profession as to its propriety."

Dr. LAUDER BRUNTON, Assistant Physician, St. Bartholomew's Hospital:—"I feel very strongly that the use of alcohol, in any shape, is inadvisable for healthy children or healthy youths. In disease, even in children, it is sometimes invaluable as a remedy, but I think that great care is required not to continue its use beyond the time when it is absolutely necessary. I have hitherto seen no reason to change the opinion I expressed many years ago, that healthy men, as a rule, are better without it; and this applies still more strongly to children and youths."

Dr. OCTAVIUS STURGES, Physician to Westminster Hospital and the Children's Hospital, Great Ormond-Street:—"If I had ventured upon any remark at all at your meeting, it would be to protest against the vile decoctions of port wine, and 'malt extracts' or some other stuff, which are so extensively advertised and sold, not only for purposes of secret drinking among adults, but also, as is within my personal knowledge, as a tonic for children. If your meeting were to unite in a protest against this one detestable practice, the authority of the well known physicians attending it is surely weighty enough to send forth a salutary and much needed warning to mothers of all classes alike. Of course it will be understood that I am not attacking any 'mixture' in particular, but the practice of mixing alcohol with reputed 'tonics,' especially in the case of children."

J. CROFT, Esq., F.R.C.S., Surgeon to St. Thomas's Hospital:—"I entirely agree with the printed form which I have signed and returned. The lessons in total abstinence should be taught in childhood. Children should be made to look upon stimulants as temptations to be avoided. The mid-day Sunday glass of beer or wine should be particularly attacked. Boys go almost straight from the table to church; under such circumstances the effect of the stimulant is, morally, most injurious. The harmless, as it is often called, glass of beer, becomes the cause of impure thoughts. Make another attack upon the example set by men and parents in taking stimulants between meals; that habit is physically and morally (or spiritually rather) most disastrous. My experience as a surgeon of surgical diseases in children, traceable to alcoholic parents, is very limited. I have seen children who are the subject of stone in the bladder, nearly ruined as regards the chances of cure by the gin given them by their parents. The parents meant kindly, but acted under a grievous misapprehension. We at St. Thomas's Hospital do not make stimulants integral parts of the dietary of children. Stimulants (wines) are only given in exceptional cases."

Dr. MORE MADDEN, Physician to the Children's Hospital, Temple Street, Dublin:—"The evil resulting from the prevailing intemperance of the young as well as the old should induce us to warn those whom our counsel would influence against that custom of giving alcoholic stimulants as a *bonne bouche* to children, which is so general in its practice amongst all classes, and so calamitous in its results. Even in those exceptional cases in which such stimulants may be necessary for children, I would repeat that we should never sanction their administration save under the guise and in the defined doses of other remedial agents—my long experience in hospital and private practice, at home and abroad, having amply confirmed the view expressed in a work of mine published many years since,

that it is physiologically wrong, as well as morally unjustifiable, even to allow a healthy child to taste alcohol in any form."

Dr. SAMUEL WILKS, F.R.S., Consulting Physician to Guy's Hospital:—"I have always held to the dictum that children should be brought up without any alcoholic drinks, leaving them to judge for themselves when they arrive at adult age. This rule would no doubt be very largely acceded to; but it is in another aspect that the question is forced upon the attention of the medical man. It is whether delicate children need the assistance of wine in restoring them to their natural vigour. Now there is a widespread belief in its efficacy in these circumstances, and especially as regards port wine. Amongst the poor if any lady bountiful bestows upon them a bottle of port wine for a sickly child they regard it as a priceless gift, and having a power which is supreme. Now, I have no reason to say that wine is of any value in affording strength to the delicate child. On the contrary, I regard it as hurtful if it be only by deadening the appetite, and neutralising the craving for food which is natural. I especially set my face against the too-frequent custom of a child being sent to boarding school, and there treated on exceptional principles."

Dr. LANGDON DOWN, Physician to the London Hospital:—"The Committee of the London Hospital issues a report of the amount of stimulants given by each physician, and analysing eight years of such reports, the remarkable outcome is that the physicians who gave the smallest quantity of stimulants have the lowest mortality, and pass more patients through the hospital; that whereas some of the physicians gave 8 ozs. of wine per patient, others gave 43·6 ozs. to each patient. The mortality of the minor amount is 14·7 per cent.; of those giving the major amount, 18·2 per cent. The average residence of those taking the minor amount of stimulants is 27·9; of those taking the major amount, 31·8 days."

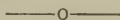
Dr. THOMAS BARLOW, Physician to

University College Hospital and the Children's Hospital, Great Ormond Street:—"I believe that in certain cases of acute disease in children, given for limited periods, alcohol is sometimes very valuable; but the question as to its employment during prolonged periods of delicate health or convalescence from illness, and as an ordinary article of diet in childhood, requires, in my judgment, a very different answer. There is one reason why we ought to be especially jealous of the prolonged administration of alcohol even in small quantities to children, and that is the risk of evoking the drink craving in early life. We are all alive to the risks of morphia craving, and of the craving for other sedatives, but the aggregate of mischief induced by all these sedatives is trifling compared with that induced by alcohol. The responsibility of starting in a child the craving for this drug becomes much more serious when we find to our dismay that the factor of heredity comes into play either in the direction of alcoholic proclivities or of the spasmodic neuroses."

Dr. CLEMENT DUKES, Physician to Rugby School, and Senior Physician to Rugby Hospital:—"I desire, *in limine*, to announce the principle which I intend to enforce, that no alcohol should be given to the young of both sexes in any form, or at any time, except as a remedy in disease, when it frequently acts as a valuable drug. With some parents the prevailing feeling at the present time appears to be that the question of proper feeding is comparatively secondary if the boy can obtain his wine or stout twice a day. This is their panacea for every ailment, for every constitutional delicacy, and even for any deficiency of food. Yet, without doubt, alcohol is detrimental to the young, both immediately and remotely, and should be absolutely omitted from their diet. Our great English public schools are among the noblest institutions of this country; and yet words are inadequate to condemn the cruel and pernicious practice which prevails at most of

them of supplying supper at 9 p.m., consisting of various stimulating articles of food, from meat and tarts to cheese and beer. At one school, at least, a cask of beer is always kept within the boys' reach, from which they can themselves draw at any moment and to any amount. It does not seem to be sufficiently realised that the animal instincts of boys are more active and stronger at the public school age than at any other time of life; while, on the other hand, their characters are immature

and wanting in the strength necessary to withstand an enemy which approaches insidiously and attacks at the weakest point. Yet, notwithstanding the activity of this instinct, boys are supplied with beer, and partake of it, and that freely in hot weather, just before going to bed. Now beer is a drug which deadens the will-power and excites the animal instincts of the young: its relation, therefore, to immorality is most momentous.



#### DR. CLOUSTON ON "DISEASED CRAVINGS AND PARALYSED CONTROL." \*

A STUDY of the physiological and psychological aspects of desire and control as brain functions and essential attributes of the higher organisms is insisted on as a necessary introduction. A desire, or, in its stronger development as a craving, in a healthy organism "represents a necessity or an advantage for the individual or the race," and has its origin in the "emotional centres" of the brain. "A diseased or pathological craving is one whose *direct* gratification would injure the organism in its own life or that of its descendants," and has its origin in disorder of the higher brain centres, which may be congenital, acquired, or developed out of an inherited instability or non-resistiveness to internal or external causes of disease. Desire and benefit is physiological; desire and hurt is pathological.

Control is a necessity of life. It, like desire, must have an encephalic basis, which may be weak or strong, resistive or incapable of inhibitory strain, through inherited or acquired influences.

Diseased cravings and paralysed control, although not always associated, are usually so. Of this morbid combination there are many varieties,

the following being among the chief:—(1) Congenital absence of inhibitory power. (2) Loss of inhibitory power with exaggerated cravings arising as one of the neuroses of adolescence. (3) Development of craving, together with loss of control, from sexual vice, drink, opium, or drugs having special affinity for brain tissue. (4) Arising from over-work, over-anxiety, distress, affliction, or life in nonhygienic conditions. (5) Following injuries to the head, or associated with gross brain lesions and sunstroke. (6) Accompanying insanity—simple mania, melancholia, delusional insanity, early general paralysis or dementia. (7) Occurring in relation to the interval between recognised attacks of insanity. (8) Associated with certain physiological conditions—menstruation, pregnancy, parturition, lactation, and the climacteric. (9) Arising from lack of, or improper, education. (10) Due to the absence of normal mental stimuli. (11) Consequent on senile degenerative changes. (12) Associated with nervous or other diseases, such as epilepsy, diabetes, locomotor ataxia, anæmia, chlorosis, cardiac disease, myxœdema, phthisis pulmonalis, pernicious anæmia.

*Dipsomania* is a diseased craving for alcoholic stimulants, with paralysed, wholly or partially, inhibition. It

\* *Edinburgh Medical Journal*, Vol. xxxv. Nos. 6, 8, 9, 11.

must, on the one hand, be distinguished from drunkenness, where control is not paralysed, but simply not exercised; and, on the other, from those morbid conditions where it may but present the chief symptom, as in mania, melancholia, epilepsy, dementia, delusional insanity, incipient brain disease, cerebral softening, tumours, brain syphilis, and commencing senile degeneration. In forming a correct diagnosis, it is important to note marked remissions or periodicity, relation to brain injury, loss of blood, mental strains, bodily disease, anæmic and exhaustive conditions, critical life periods, attack of mental disease; changed mental, moral, and emotional character; neurotic inheritance, neurotic diathesis.

Dipsomania is classified into—(1) Developmental and retrogressive dipsomania, including congenital cases, where higher inhibition has never developed; those arising at puberty or during adolescence, those occurring at the climacteric or senile class. (2) The dipsomania of a neurotic diathesis. (3) Somatic dipsomania, or where conditions such as "traumatism, sun-stroke, paralysis, brain erysipelas, brain lesions of all sorts, so weaken the self-control, that men who had previously led sober lives then acquire marked cravings for liquors, and control those cravings." In this group are included cases occurring after loss of blood or severe illness, in anæmia, during pregnancy, after childbirth, or in the course of lactation. (4) The dipsomania of excess, in which class are included cases "where there is no special heredity, no neurotic diathesis, no disease, and no critical period of life, and where there has previously been a prolonged excessive use of stimulants."

Treatment is to be directed by the following principles:—(1) Legal control where necessary. (2) Total abstinence. Dr. Clouston thinks this is "needed in ninety-cases out of a hundred." (3) Special asylums for certain cases. (4) Every measure to strengthen bodily health. (5) Occasional use of certain drugs "to allay temporary intolerable cravings, and to

give the stomach and brain temporary substitutes for its accustomed stimulus." (6) Application of preventive mental medicine by individual study of children, with a view to right "up-bringing" of both body and mind.

*Morphinomania.*—The conclusions on this morbid drug craving cannot be given better than in the author's own words:—(1) "The habitual use of opium is in nine cases out of ten most injurious to the higher mental powers, and more especially impairs the volition. (2) The dose has to be steadily increased till such an amount is taken as tends to impair nutrition and the trophic energy of the brain, to disturb the appetite and the whole alimentary system, and ultimately to destroy the power of natural sleep. (3) The craving set up by such excessive use of opium is one of the most persistent, intense, and difficult to resist of any known morbid craving. It has no remission or periodicity in it. (4) The nervous constitution of the patient has very much to do with the inception of the habit. It may be said generally that persons of the nervous diathesis, of nervous or insane or drinkers' hereditary, all persons who feel and dread pain excessively, and most 'excitable' persons, are specially liable to acquire the craving. (5) Given or taken for insomnia or to relieve pain, is the origin of most cases of morphinomania. (6) It behoves medical men to take the constitution of each individual patient carefully into consideration before opium is prescribed, and to ask "Is there any danger of a habit being set up?" (7) As to treatment of morphinomania, I have little hesitation in laying down its principles:—Help from without in the shape of skilled strong-nursing; control and never remitting companionship are needed in almost all cases. It is better and safer to undergo the short Hades of absolute stoppage, than the more prolonged purgatory of tapering off. While this is being gone through, use the bromides, wines, every form of beef and peptonoids that the stomach or the rectum will retain; bismuth, ice, and counter-irritation for the gastric pain and vomiting; digitalis



and strophanthus for the weak and irregular heart's action. I should now use paraldehyde or sulphonal to get some sleep for a few nights, but I should not go on for long with them. If there is emaciation, I should try Dr. Playfair's recommendation of massage, though I suspect some of the good effects in his cases resulted from the control of the massage nurses, and the taking up of the patient's mind by the details of the process, and the assertions that would be dogmatically dinned into their ears as to its unfailling efficacy. The great things to aim at are good nerve tone, firm muscles, a brown sunburnt skin, steady occupation, as much fat as can be put on, a sound moral sense all round, strengthened inhibition, and a dominating conviction that the drug is poison in any dose, and under any possible circumstances whatever."

*Chloralism.*—The craving for this drug differs essentially from those previously considered, in that "it creates no ideal state of mind, it simply produces self-forgetfulness and sleep."

*Cocainism.*—This is one of the newest of the drug cravings. The intensity of the craving is peculiarly intense, and control is readily lost. Increase of the dose is needed quicker than in any other drugs to get the same effect. Hallucinations of sight and hearing, with paræsthesia, particularly of the skin, are constant accompaniments and tend to become chronic. Its immediate effects are more transient than any other such drug, but this does not apply to the craving set up. Treatment consists mainly in outside control, immediate withdrawal of drug, careful watching, general nutritive supports, and possibly asylum superintendence.

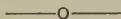
In the concluding paper of the series the author deals with other diseased cravings than those above mentioned, and the following conclusions are reached:—"(1) That many morbid and hurtful uncontrollable cravings exist apart from those of drink, morphia, chloral, or cocaine. (2) That there is a distinct class of 'inhibitory neuroses' that may be accompanied

by little intellectual or emotional disturbance. The objects of the morbid cravings are often accidental. (3) Some of the most morbid cravings and examples of loss of control are found connected with the reproductive function, in regard to which, too, perversions of object are also very apt to accompany such morbid cravings. (4) For the existence of many cases of such reproductive loss of control prostitution is probably responsible, and the unnatural habit of masturbation for many more. (5) The reproductive instinct is in some cases morbidly transformed into uncontrollable impulses towards suicide and homicide. (6) Cravings to break and destroy, accompanied by little intellectual disturbance, that cannot be controlled, are often met with. (7) The state of morbid inaction is often closely allied to morbid impulse, one sometimes taking the place of the other. (8) There are cases where there is a morbid loss of control over general conduct in ordinary matters, and cravings to do quite harmless acts. (9) There is a morbid condition of brain automatism, apart from hypnotism, in which there is little or no power of inhibition, but at the same time no active cravings, the conduct being regulated by the will of others, or by chance suggestion from without or within. (10) Loss of control often precedes for some time the other mental symptoms of an attack of active insanity. (11) Inhibition may be lost in one direction only, while in most others it may be very strong, gambling being often an example of this. (12) All brains must have some 'excitement' to keep them healthy, the important question being how to select the kind of excitement that will not lead to morbid craving, and that can be easily controlled. (13) Morbid indecision may be an example of paralysed control. (14) We may have morbid and uncontrollable muscular action, not purposive, and not attended by ideation or emotion at all. (15) It is a fact in man's medical psychology, that control is almost always lessened at night or in the darkness, as compared with the day, the

night being the time for morbid indecision, fears, superstitions, and a tendency to mistake the subjective for the objective, his higher powers then undergoing a process of partial 'dissolution'—man, in fact, is a less evolved being, as regards his inhibition, at night than during the day, and his brain is then more liable to distur-

bances of its controlling functions in disease."

Dr. Clouston greatly adds to the interest and value of his paper by the graphic descriptions of many typical cases culled from his own extensive personal experience.—(An abstract by Dr. T. N. KELYNACK. *Medical Chronicle*, December, 1890.)



## LEGISLATIVE CONTROL OF HABITUAL DRUNKARDS.

*By T. S. CLOUSTON, M.D., Edinburgh.*

THE chief points in regard to which the treatment of insanity and the administration of the Lunacy Acts have special concern are:—

1. Will habitual drunkenness be considered and treated legislatively as if it were a form of insanity?

2. Will the measures that attempt to control habitual drunkenness be available for the control of those bouts of drinking that so often cause actual insanity in predisposed subjects, when such bouts can be clearly shown to have caused attacks of mental disease?

3. Will our present asylums be used in any way for the custody and cure of habitual drunkards? And will the machinery provided by the Lunacy Acts be used in any way for this purpose?

That such legislation might effect this and every other asylum in the kingdom, if it mixed up ordinary mental disease, as we now understand it, and drunkenness, is very evident. No doubt there is a real connection between the two conditions, but there are also differences that seem to me essential, and that should be well considered before legislation takes shape.

The chief points of connection between excessive drinking and insanity are the following:—

1. Alcoholic excess is the most frequent single exciting cause of mental disease, and it acts also as a predisposing cause in very many cases. During the past fifteen years we have had 837 admissions, in whom drink has been put down as the cause, or 16·4 per

cent. of all our admissions during that time. This may be taken as about the general experience of the country. Let us suppose that excessive drinking could have been put a stop to, would all those 837 persons have remained sane? It is certain they would not, but a large proportion of them would have done so. It must be clearly kept in view that such mental disease, so caused, is not "dipsomania," and may have little in common with it, and the proper treatment of such insanity is already provided for under the present laws.

2. Excessive drinking and mental disease are closely connected hereditarily in many cases. The children of drunkards sometimes become insane, and the children of insane people still more frequently become drunkards.

3. The same causes often tend to produce both, and in the same kind of people, viz., those of a too-nervous constitution, whose power of control is innately below the average, or whose cravings are above it, of which causes the following may be taken as examples—viz., bad conditions of life, bad air, living too monotonous lives, over-work, over-anxiety, ill-health, injuries to the head, certain diseases of the brain, sunstroke, and in some cases the physiological crises and functions of life.

4. There are some cases of drinking that present some of the very same symptoms as many cases of mental disease, viz., periodicity, impulsive-

ness, suicidal and homicidal feelings, loss of the natural feelings of affection towards wife and children and relatives, incapacity to do continuous work mental or bodily, &c.

5. Many cases of actual insanity are accompanied by the drink craving. For such no new legislation is needed, however. The greater includes the less. In them the insanity is the disease; the excessive drinking is merely one of the symptoms.

6. Above all other resemblances we have this one—viz., that lack of the controlling power is the symptom most common to mental disease and drunkenness, and constitutes along with a dominating morbid craving the disease itself in “dipsomania.”

7. Mental disease always results from a pathological condition of the brain, and is a true disease, therefore, precisely of the same essential nature as many other diseases, and I think it is proved that habitual drunkenness often also results from a pathological condition of the brain, and is, therefore, in those cases a true disease. It is only when it is such a true disease that it is proper to call it dipsomania. This word is used at present very loosely and inaccurately, and often misleads.

On the other hand, the differences and distinctions between ordinary mental disease and habitual drunkenness, or even true dipsomania, are very marked. The following are some of those practical distinctions:—

1. Mental disease has not so commonly originated in the voluntary action of the persons suffering from it, as dipsomania; that is, much fewer cases of insanity could by any precautionary action have avoided the falling into the disease. Probably far more than one-half of all dipsomaniacs could at one period of their lives have so acted voluntarily as not to have become diseased drunkards.

2. The limited nature of the intellectual damage in dipsomania with the almost total moral damage is entirely different from most cases of ordinary insanity.

3. When the obvious symptoms of mental disease have disappeared un-

der treatment, a certain short reasonable time only of convalescence and probation is needed before the patient can safely resume his work and place in society. He is then “cured” of his disease. But all experience of the dipsomaniac goes to show that a very long period of restriction of his liberty is needed for any possible cure. In him restriction of liberty of action is, in fact, the essence of treatment; while, in the case of the insane man, it is more of an accident, or adjunct of treatment.

4. The two classes don't do well together in the same institutions, and are apt to do each other harm. Nearly all the experience of asylum physicians is in this direction. My own experience is so strong on this point is that I never now take a true dipsomaniac who is not insane otherwise into the asylum if I can help it.

5. The medical and moral treatment is different in the two cases.

6. The public, and especially the lawyers, instinctively draw a marked distinction between the two, and have always done so. This must be caused by some real difference.

7. Intimately connected with the last fact and the first is the consideration that in regard to mental disease there is almost no room for any feeling but pity; while in regard to excessive drinking the feeling of blame also comes in, and should come in in the majority of cases. The feeling of censure is tonic and good for the patient. A dipsomaniac who does not take blame to himself is not in the hopeful way of cure. Making excuses for himself is commonly a part of his moral disintegration.

8. For the real cure of either habitual drunkenness or dipsomania we need in nine cases out of ten the patient's own determined effort, so far as he is able to put it forth, and his honest wish to be cured. Without that no power on earth will commonly cure him. This does not apply to mental disease to anything like the same degree.

9. In any ideal scheme for the treatment of dipsomaniacs and habitual drunkards, work, and the earning of

their own livelihood while under treatment, stand out much more prominently than in any such scheme for treating the insane.

10. Dipsomania, the real disease, cannot as yet be certainly distinguished from the vice of excessive drunkenness. They often need much the same treatment, and have far more points in common than dipsomania and ordinary insanity. Nearly all sound writers, such as Professor Gairdner, admit this, I certainly can't distinguish between the two in all cases.

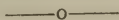
I think there are two possible lines on which legislation might proceed in regard to this matter. The one would be to confine the provisions for treating cases to the true dipsomaniacs who can be proved to be labouring under a real disease. If this were done, I think certain of the provisions of the lunacy statutes might be used. Notably for supervision the Commissioners in Lunacy might be available. But even then I should be most adverse to the present asylums being used as places of treatment, except in the limited class of cases to which I have alluded, where there has been a previous attack of actual insanity, and excessive drinking has been proved to have caused it, or to be essentially connected with it.

The other principle on which legislation might proceed would be that advocated by Professor Gairdner and others, viz., that as the distinction between diseased drinking and mere vicious indulgence is an "all but impossible distinction," and that it is in fact, "merely an academical question whether such an (incurable) drunkard is to be regarded as technically insane or not." Therefore it becomes "an expediency of the highest kind in respect of the victim himself and his family" to institute "a measure of legal restraint" to the otherwise incorrigible drunkard as such.

In Mr. Morton's bill the patients to

be treated and reformed in the "Restorative Homes" proposed to be established are described as labouring under "a special form of mental disorder, the chief distinguishing features of which are excessive and secret indulgence in intoxicants, the craving for which is more or less persistent, or occurring in fits with remissions at intervals of time, and a marked change in the mental powers and moral character." This would open the door to contention in every case, whether it really came under the definition, while Professor Gairdner's scheme would avoid that. He, too, very properly urges that some more responsibility should be fixed by the new legislation on the sellers of drink in every case where intoxication has resulted from such sale.

I am greatly concerned that, whatever principle is adopted in future legislation in regard to the restraint of drinking, the 400 cases who year by year in Scotland are made actually insane by drink shall in some way be considered and provided for, as well as the ordinary habitual drunkards. For their own sakes, and for the sake of the ratepayers who have to pay for the process of cure in such cases, it is desirable that they should be prevented from obtaining the poison which has already upset their brain-working. It should be made a penal offence to sell drink to any man who is known to have ever suffered from an attack of alcoholic insanity. It is yet doubtful how many dipsomaniacs and habitual drunkards can be cured; but it scarcely admits of any doubt that much insanity might be prevented were the facilities and temptations to drink to excess diminished, and drinking made a reasonable adjunct of social life, instead of the mere solitary gratification of a base appetite.—*Seventy-seventh Annual Report of the Royal Edinburgh Asylum for the Insane.*



DEATHS FROM STARVATION.—The number of persons who, according to the verdict of coroners' juries, died of starvation in the Metropolitan District in 1889 was twenty-seven.



## ETHER DRINKING IN IRELAND.

AN address on "Ether Drinking, its Prevalence and its Results," was delivered on Monday, 13th October, by Mr. Ernest Hart, before the Society for the Study of Inebriety. Dr. Norman Kerr was in the chair, and there was a numerous attendance, among whom were Sir E. Saunders, Dr. C. J. Hare, Dr. George Harley, F.R.S., Dr. Cleveland, and many medical men. Mr. Hart said that in consequence of statements recently made in the public press as to the prevalence of ether drinking in certain parts of Ireland, he had instituted a systematic inquiry on the subject among those best able to give trustworthy information. A schedule of questions relating to the origin and prevalence of this form of inebriety, the quantity of ether habitually taken, its effect on health and duration of life, and its alleged tendency to the production of insanity and crime, was sent to the medical men and clergyman of the incriminated districts. Replies were received from a considerable number of these gentlemen, and on the facts thus obtained Mr. Hart based his address.

The origin of ether-drinking seemed to be involved in some obscurity. It was considered by some to be an indirect result of Father Mathew's teetotal crusade (*circa* 1840), which was so successful in the districts referred to that the use of alcoholic stimulants was abandoned altogether. Methylated ether was soon after introduced as a "new drink," which might be taken without breaking the pledge. A more probable view, however, appeared to be that, as one of Mr. Hart's correspondents put it, the suppression of illicit distilling had driven the people to ether as the best substitute for poteen. The introduction of ether-drinking was attributed by other authorities to doctors who were led by their belief in its efficacy as a medicine to prescribe it too freely, with the result that their patients learned to abuse it for purposes of intoxication. Ether drinking, according to Mr. Hart, prevailed chiefly in the southern part

of the county of Londonderry; in North Derry it was practically unknown. The chief centres of the habit were Draperstown, Maghera, Magherafelt, Tobermore, Desertmartin, and Moneymore in Co. Derry, and Cookstown in Co. Tyrone, and the districts around these towns. The fluid drunk was the ordinary methylated ether of commerce. It was supplied mostly from England, the trade being mainly in the hands of three large London firms of manufacturing chemists. These firms shipped the ether to Belfast to wholesale dealers, who distributed it among the grocers and publicans of Draperstown, Maghera, Cookstown, Pomeroy, Omagh, and Dungannon; some of these tradesmen also obtained supplies direct from the makers. Ether was also sent to South Derry by one Dublin firm. Details of the trade were obviously almost impossible to obtain, but it was clearly proved that the consumption of ether in the north of Ireland, and particularly in South Derry and part of Tyrone, was out of all proportion to that of the rest of Ireland, and far beyond its legitimate wants. Much of the ether sent to Ireland from this country was smuggled as "drugs" in order to escape the extra carriage rate to which ether as an explosive was subject. The price at which the English manufacturers supplied methylated ether was stated to be 8½d. per lb., or 8d. in "drums" (holding 10 gallons). Owing to the light specific gravity of the fluid, the wholesale price was thus much less than a halfpenny an ounce, so that no other intoxicating drink could compare with it on the score of cheapness. By judicious dilution, however, the retail dealers contrived to make a profit of cent. per cent. The ether was retailed in "draughts."—that is, rather less than half a wine-glass. This was generally taken neat, and washed down with a mouthful of water, but seasoned toppers scorned that precaution. This was repeated several times in the course of the day, sometimes five or six times in an hour.

The "draught" cost a penny, and three or four of these sufficed to produce intoxication in average drinkers; many, however, could take much larger quantities. As much as five ounces had sometimes been taken at a draught, and a pint was not considered by some an extraordinary allowance during a debauch. The special feature of ether intoxication was that it came on very quickly as compared with that produced by whisky, &c.; it also passed off with extreme rapidity, so that an ether drinker often got drunk half-a-dozen times a day. Some idea of the quantity of ether consumed in the districts where the habit prevailed might be formed from the fact that more than two tons of ether were openly passed along the railways each year into the Cookstown district, while a still larger quantity was conveyed there secretly. In two small villages in that neighbourhood traders annually sold over 500 gallons each. In Cookstown, Draperstown, Moneymore, and other places, the atmosphere seemed loaded with the smell of ether, especially on fair days. In the third class carriages of the Derry Central Railway the smell of ether on market days from the women coming from Maghera was disgusting. It was drunk by both sexes, young and old, but not so much, as yet—as one of Mr. Hart's medical correspondents stated—by young girls. The doctors were pretty well agreed that the habit had been increasing for the last year or two, but no definite statistics could be obtained. Ether drinking prevailed more among Roman Catholics than among Protestants, and the Catholic clergy had done all in their power to put it down. The General Synod of the Church of Ireland had called the attention of Parliament to the prevalence of the habit, and resolutions on the subject had been passed by the Synods of the dioceses of Armagh and Derry. The immediate effects of ether drinking were violent excitement, followed, if the dose were sufficiently large, by stupor. Quarrelsomeness was a marked feature in ether intoxication. All these effects were intensified if ether-drinking was combined, as was often the case, with

over-indulgence in whisky. Ether-drinking did not seem to have any markedly injurious effects on the tissues comparable to those produced by alcohol, but it disordered the health by causing chronic gastritis and indigestion with nervous prostration. The effect on the moral character was very bad, leading to loss of self-control, lying, &c., and a general mental condition akin to that of hysteria. Ether-drinking seemed to have no direct tendency to produce insanity, but it predisposed to crimes of violence by the pugnacity which it induced. As to its shortening life, it only did so apparently by exposing its victims to accidents, especially to severe burns from setting themselves on fire with lighting pipes, &c. Mr. Ernest Hart concluded by earnestly appealing to the Legislature to make some attempt to put down ether-drinking by restricting the sale of the fluid in some way without interfering with its legitimate use in medicine and in the arts.

At the close of Mr. Hart's address the following resolution was adopted by the meeting:—"That this meeting desires to call the attention of the President of the Local Government Board and the Excise authorities to the facts collected by Mr. Hart, with a view to the present law being enforced, and if necessary further legislation to check this vice in the bud."

In the House of Commons, on the 1st December, the Chancellor of the Exchequer said:—"The improper use of ether in certain rural districts of the North of Ireland as an intoxicant, and the serious and sometimes fatal results ensuing from the practice, have received the careful attention of her Majesty's Government, who consulted the Royal College of Physicians in Dublin on the matter. In accordance with the recommendation of the College, an order of the Lord-Lieutenant in Council was passed on Saturday last scheduling sulphuric ether as a poison, and it can now be only sold by qualified chemists and as a poison. It is hoped that this measure will effectually stop the supply of ether to the public as an intoxicant."

## PROFESSOR DEMME ON ALCOHOL IN CHILDHOOD.

AN International Anti-Alcohol Congress was held in September last, at Christiania, Norway, under the presidency of Dr. Dahl, an eminent local physician, who was President of the Public Board of Health, and has since died, at an advanced age. Dr. Boutzen acted as Secretary to the Congress.

Of all the papers that were read, the most interesting, from a scientific point of view, was that of Professor Demme, of Berne, which was read in his absence by Dr. Forel, of Zurich. The professor emphatically condemned the use of alcohol by children, basing his condemnation not only on his experience as the superintendent of a children's hospital, but also upon the special investigations which he has made into the effects of alcohol on child life. He had selected for his investigations, he said, two groups, each of ten families, and each similarly circumstanced as regards the outward and ordinary conditions of life. But there was this fundamental difference between the two groups or sets of families: one group, which consisted of fifty-seven children, was obviously affected by alcoholism in a greater or less degree; whereas the other group, consisting of sixty-one children, was not so affected, at any rate, to an appreciable extent. Of the fifty-seven children referred to,

(1) Twenty had drunken fathers, but their mothers and grandparents were moderate drinkers. Of these twenty children, only nine, or 45 per cent., had constitutions free from abnormal disease.

(2) Thirty-one had drunken fathers and grandfathers, but sober mothers and grandmothers. Of these thirty-one children, only two—that is to say, a little more than 6 per cent.—possessed normal constitutions.

(3) Six had drunken parents and grandparents. Of these six only one is

living, and he is subject to epileptic fits.

On the other hand, of the sixty-one children who came from the families of moderate drinkers, fifty, or 82 per cent., are entirely free from disease, three are dead, and eight are suffering from abnormal diseases.

It would have been deeply interesting had the Professor been able to pursue his investigations one step further by examining the bodily state of children whose parents and grandparents are total abstainers. But this was, of course, impossible in Switzerland; in England, however, it would be very easy. Even as they stand, Professor Demme's figures are very suggestive, and one need not be in the least surprised, therefore, to find him declaring, with much emphasis, that alcohol is hurtful to children, and that alcoholism or intemperance leads to consequences which are simply irreparable. And the Professor, be it remembered, is not himself a total abstainer.

Though he attached little or no scientific value to another experiment which he had induced two or three heads of families to make, still, he held that, to a certain extent, it verified the conclusions which he himself had arrived at. The experiment spoken of was this:—A certain number of children in Berne had been, at the Professor's suggestion, forbidden the use of wine or alcohol in any shape or form during eight months of the year, but during the remaining four months of the year they were supplied with the usual quantity of wine diluted with water. The parents closely and carefully watched the children throughout the year, and found that they slept better and longer, and appeared decidedly brighter and more lively, during their eight months of total abstinence than during their period of wine-drinking.

## RATIONAL TREATMENT OF DIPSOMANIA.

DR. KAHLBAUM, in the Section of Psychiatria, raised the discussion on this subject as an international subject, at the Berlin Medical Congress.

The treatment of alcoholism has appeared in a scientific form in several countries, such as Magnan, France; Bear, Pelmann, and Binz, in Germany; and Huss, in Scandinavia. He pictured the reputed drunkard, and related the painful position the psychiatrist was placed when asked to advise in such cases. Such cases were either diseased before they became drunkards, or became diseased by the drink. In either case the great misery complained of is insatiable desire for alcohol, which they cannot subdue or avoid.

The usual consequences of alcoholism are tremor, paralysis, epilepsy, partial or general mental disorder, which incapacitate the inebriate for any other place than a medical institution. As soon as these morbid phenomena disappear the patient is allowed to leave the hospital under the presumption of being cured, but he has no sooner gained his liberty than he perpetuates the same error. If he were retained longer in hospital there might be more hope of cure, but the institution is usually glad to get quit of him or the patient has lost all patience with his detention and his own desire is to leave. It is true that the institutions for inebriates are far too limited, and at the same time exposed to danger. The best thing that could be accomplished would be a general consensus to have an island appropriated for these subjects of intemperance. The presumption of this extraordinary thirst for alcohol is

based on the theory of a molecular change in the nervous system which disturbs the equilibrium when the alcoholic derivative is withdrawn after a long continuance of its use. When the unsteady molecular stage has been reached the alcoholic desire is intense, and nothing short of total abstinence will overcome it. If the organic changes have not extended too wide this molecular condition may soon be restored to its former equilibrium by its discontinuance. But where changes have taken place a longer time will be necessary for restitution. Absolute denial of alcohol is the rational mode of treatment for alcoholism, but this must be continued long enough to restore the morbid changes. Nothing short of a medical combination with the assistance of some wealthy laymen, as is carried out in some places in America, will overcome this difficult problem, where inebriate asylums must be established. This company should undertake the management of the island under State authority, and prohibit the production and importation of every kind of alcoholic drink. A wider organisation might be arranged where the inebriate and his family could be transported. In this case it would be necessary to provide the means of livelihood for their sustenance on the island, and as an encouragement of the arts and manufactures would be objectionable to society although better suited to the party, farming or agriculture would be the safest industry to encourage. Such an organised insular institution might be useful for morphia drinkers and other extravagant abuses.—*Medical Press*.

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HOSPITAL REFORM.—One of the results of dispensing with the common use of wine in a poor law hospital in Lancashire, is that the undertaker has declined to renew his contract on last year's terms. He said that the deaths were so few that he could not make the coffins at the price.—*Joshua Rowntree, M.P.*



## British Medical Temperance Association.

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*President.*

Dr. B. W. RICHARDSON, F.R.S.

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### CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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*Honorary Secretary.*

Dr. J. J. RIDGE, Enfield, Middlesex.

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	W. SOPER, Esq., Clapham Road, S.W.

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### NOTICE.

Members and Associates are reminded that Subscriptions for the current year became due on May 1, 1890; and it will save much trouble [and some expense if they will be good enough to send them.

J. J. RIDGE, M.D., *Honorary Secretary.*

Carlton House, Enfield, Middlesex,  
December, 1890.

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### THE WINTER QUARTERLY MEETING.

A MEETING of the British Medical Temperance Association was held in the rooms of the Medical and Chirurgical Society, 20, Hanover Square, W., on Friday, 28th November, at which a paper was read by Dr. C. R.

Drysdale, entitled, "A reply to some doubts as to the superior health and longevity of total abstainers."

In the discussion which followed, Dr. Richardson referred to the fallacy of the inquiry made by the British

Medical Association, the results of which, appearing so unfavourable to total abstinence, had been spread far and wide by its enemies, and condemned it as loose and totally inadequate, and ought never to have been made in that form, based as it was on past history and the memory of the reporters. No other scientific society would have relied on such a method, and he protested very strongly against it. He also referred to the fact that there was a similar difference between abstainers and non-abstainers, when the friendly societies existed in the same town, such as Preston, the surrounding circumstances being the same.

Dr. THOMAS MORTON, referring to the enquiry of the British Medical Association, said that general practitioners saw more of the lives of individuals than consultants, and, therefore, he could not help thinking that the statistics collected by the committee were of some value. He thought that it would be a good thing if this or some other society would conduct another inquiry on similar lines, except that it should be of cases occurring during a period of five years or so from the present time instead of ranging over a past period.

Dr. LORD expressed his gratification with the paper, as it supplied statistics which would be of great use in controversy. He had himself met several clergymen to discuss this question, and had tried to convince them that abstainers had a greater health and longevity. A great stumbling-block had been the long lives of such men as Cardinal Newman and Mr. Gladstone, although against these non-abstainers he had instanced Count Moltke and Cardinal Manning. As a result of this meeting he had heard that nineteen of the clergymen had become abstainers. He recommended similar meetings.

Dr. J. J. RIDGE said he agreed with Dr. Morton that the statistics of the British Medical Association committee, rightly interpreted, were really favourable to total abstinence. The true explanation of the low average age at death of the abstainers was

that the average age of all living male abstainers was lower than that of all males, as the abstainers had not had time to get old. The results brought forward by Dr. Drysdale were confirmed by those of the Indian Army, such statistics being very valuable, as the men were under exactly similar circumstances as to lodging, and diet, and exercise. He had found that in 1885-6, comparing 3,978 abstainers and 8,829 non-abstainers, the admissions to hospital were as 45 to 100, the invalided to the hills as 9 to 19, the invalided to England as 6 to 29, and the deaths at 27 to 95. As to the long life of Cardinal Newman, none could say how long he would have lived if he had been an abstainer, but there was every reason to believe it would have been longer, because abstainers on the average did so live. It was similar to the advantage of living in a healthy town with a low death-rate rather than in one which was higher.

Mr. W. BINGHAM, of the Sceptre Life Office, said that the mere ages at death were almost valueless for arriving at a right conclusion unless the ages of the living group from which the deaths were drawn was given. The number of assurers at end of 1888 in the general section of his office was 6,700, and in the temperance section 4,527. Out of the total deaths for the five years, 1884-88, 41 per cent. in the general section were from diseases of the heart and blood-vessels, brain or nerve or digestive organs, while in the temperance section there were only 36 per cent. from the same causes, and these would be classes of disease peculiarly affected by alcohol. In addition to the accident companies mentioned by Dr. Drysdale, the Ocean Accident Company published in its prospectus, under the heading, "Distinguishing Features," "total abstainers insured at 10 per cent. less than the published rates." The secretary of another office stated that when abstainers met with accidents they recovered more quickly than non-abstainers, and hence an abatement could be made. As supporting the army statistics mentioned by Dr

Ridge, the following testimony of Colonel Geary at the Sanitary Congress at Stafford was notable. He said, "During the Abyssinian campaign, for six weeks advancing upon and retiring from Magdala, there was no alcohol, no crime, and the percentage of sick was less than in any part of the British army at home or abroad, while the troops performed arduous marches on scanty food and often with bad water."

Dr. JOHN MOIR said he had seen the statistics of the British Medical Association's committee hung up in public-houses, and, therefore, it was desirable that these facts and figures, which proved the advantage of total abstinence, should go out in as many forms as possible. He was surgeon

to the Beckton Gasworks, which employed from 2,000 to 3,000 men, and they had, on the average, thirteen days of sickness a year, which was more than the Rechabites. The Foresters' rate of sickness was lower than that of the Oddfellows, which he attributed to the fact that, in most cases, the former met in halls and the latter in public-houses. The leaders of the working-men, such as Burns, Tillet, and Mann, were abstainers, and realised that this was essential if the men were to rise. He approved of the idea of a fresh investigation.

Dr. RIDGE moved a vote of thanks to Dr. Drysdale, which was seconded by Dr. HEYWOOD SMITH, and carried unanimously.

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## Notes and Extracts.

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**ALCOHOL AND LONGEVITY.**—Dr. E. Macdowell Cosgrave, of Dublin, Fellow of the King and Queen's College of Physicians and Professor of Botany and Zoology in the Royal College of Surgeons, has sent us a report of his on "Alcohol and Longevity," reprinted from the *Dublin Journal of Medical Science* for July last. It is a clear demonstration from a great variety of official statistics and the careful and unbiased conclusions of eminent actuaries, not only of the appalling mortality of the intemperate above the general death rate, but of the decidedly higher mortality and lower expectation of life at all ages of even the most moderate drinkers than of total abstainers.

**ALCOHOL AND INSANITY IN AUSTRIA.**—It was lately declared by the Sanitary Board of Vienna that the establishment of an asylum for inebriates was absolutely unnecessary and would lead to no good, and that all drunkards that were a danger to the community might be sentenced to periods of hard labour. The director of the madhouse

at Klosternenburg took the question in hand, and has now published in a medical paper opinions directly opposite to those held by the Sanitary Board. Even if many cures may not be hoped for, he says, the asylum should, nevertheless, be founded. In Austria 25 per cent. of the cases of insanity in male persons are due to alcoholism.

**COGNAC.**—Professor Sell, of the Imperial Office of Health in Berlin, has published an interesting essay on cognac, according to which the difficulty of judging of its purity is very great. The circumstances hitherto stated as distinguishing genuine from adulterated cognac are of no use to the chemist now, owing to the skill with which it is imitated. Professor Sell entirely agrees with other chemists, who declare that the unaided senses of real experts gradually afford a much surer test of cognac than chemical analysis.—*Lancet*.

**SALICYLIC ACID AND TEMPERANCE DRINKS.**—Salicylic acid is being more and more used to prevent fermentation

in temperance drinks and certain foods. It is, therefore, obviously essential that the pure acid should alone be employed. A recent prosecution, however, in Glasgow revealed that many samples of artificial salicylic were contaminated with small quantities of creosote, owing to the impurity of the chemicals used in the manufacture. Temperance drinks above all others should be pure and undefiled, for the very essence of their recommendation is their non-poisonous character.—*Medical Press.*

**ALCOHOLIC HEREDITY.**—Some significant statistics have appeared in a foreign medical journal of high standing, compiled by Dr. Paul Tarnowsky. The parentage of many hundreds of women leading immoral lives was inquired into, and it was found that by far the largest percentage of such women had drunken parents. The following are the figures:—

	Per cent.
Alcoholic parentage ...	82·66
Phthisical        " ...	44
Epileptic         " ...	6
Insane            " ...	3

This plainly shows the awful moral degeneracy which is handed down from drunken parents to their children.

**GOVERNMENT ASYLUMS IN NEW SOUTH WALES.**—There has been a gratifying reduction in the cost of intoxicants at the Government Asylums at Parramatta. For the years 1886-7-8, the average cost in the Macquarie Street Asylum was as follows:—Hospital inmates, £5 14s. 8d. per head; total inmates, £1 7s. per head. For the period ending July, 1890, the cost per annum was—Hospital inmates, £3 13s. 6d. per head; total inmates, 14s. 8d. per head. The Newington Asylum figures are as follows:—Average cost for Hospital inmates, former period, £5 17s. 4d. per head, latter period, £1 15s. 1d.; total inmates, former period, £1 9s. 2d., latter period, 11s. 1d. It may be mentioned that the number of deaths at the Macquarie Street Asylum for the two years ending 1888 was 70 per annum for 272 inmates, while for the period ending

July, 1890, it was only at the rate of 45 per annum out of 290 inmates. The Newington Asylum also showed similar results.

**EFFECTS OF ALCOHOL ON THE TEETH.**—It is well-known that there is a nervous sympathy between the stomach and the teeth, and between the mucous membrane of the mouth and throat and the stomach. When the stomach is disordered by alcohol, the pulps, or what are commonly known as the nerves of the teeth, become congested and liable to inflammation; this, being aggravated by the irritated and unhealthy state of the mouth, soon culminates in disease and death of the pulp. The teeth, being robbed of that which supplies their nourishment and vitality, decay with great rapidity. Abscesses form on the roots and the whole mouth becomes the seat of active disease. Nor is this process a painless one, for the nerves that supply the teeth are derived from the trifacial or fifth pair, which also supply a number of the muscles of the face and the sense of taste. Herein lies the key to the excruciating neuralgic pains, contorted face, and impaired sense of taste that is the common lot of the poor inebriate.—*Dr. M. G. McElhinney.*

**CENTENARIAN PATHOLOGY.**—The first paper in the last issue of the *Asclepiad* contains the result of personal observations of two cases of centenarians that have come under Dr. Richardson's cognisance during his professional career. Of the first, dating twenty-six years back, comparatively few particulars are given, but "her habits were said to have been very temperate, and she had never been known to drink any stronger stimulant than tea, but she was a confirmed smoker." The second case described is that of an old lady of 102, who was seen at Wimborne by D. Richardson less than three months ago; and of her it is said that "from her birth Mrs. A. — has been a total abstainer from alcoholic liquors, not from adhesion to the principles of total abstinence, but because she never, at any time, had a liking for the alcoholic class of drinks. She had



beer and other alcoholic fluids at command whenever she liked, but preferred water or tea, and found total abstinence, both agreeable and healthy. She never smoked." Many details of special interest to the medical profession are given in the *Asclepiad* respecting this venerable lady, who has been remarkably free from disease, and never knew what it was to be ill until ten years ago, when she met with an accident, and has never since been able to walk without assistance. From the increasing number of centenarians now occurring Dr. Richardson draws the conclusion that "under proper and favouring conditions the age of one hundred years might come readily into the order of nature."

**ALCOHOLISM IN CHILDHOOD.**—Dr. T. D. Crothers (*Journ. Amer. Med. Assoc.*, 1890, vol. ii., p. 531), accepting the calculation that 70 per cent. of "alcohol cases" are "directly inherited," urges that more importance should be attached to a potential or actual alcohol craving in the children of alcoholic parents. He quotes cases in which this craving became manifest at very early ages, even as young as two months. He contends that "in all cases where alcoholic ancestors, even back to the second generation, can be traced, there are certain predispositions which must be considered in the treatment;" (1) a tendency to exhaustion from feeble vitality and low power of restoration; (2) an instability of cell and nerve functions, especially of the higher cerebral centres; (3) a special affinity for all nerve stimulants. He considers that alcohol should not be given to these children in any form, and that in prescribing for them tinctures should be avoided, quoting a case in which alcohol craving seems to have been aroused by tincture of cinchona. Their diet also should be regulated; meat and meat broths should be replaced by less stimulating foods (farinaceous).—*British Medical Journal*.

**BAD HEALTH AND WASTED LIFE.**—The national loss arising from bad health has been emphasized by Sir Thomas Crawford, M.D., in his presidential address at the Brighton Sani-

tary Congress. The loss to the army by sickness is equal, we are told, to "a force of 10,716 men, and at £1 a week the loss from sickness in the army amounted to the very considerable sum of £557,232." In civil life the loss by sickness is put at about twenty million weeks' work in the year, "or about one-fortieth part of the work done in the year of the whole population" between the ages of fifteen and sixty-five. Sir Thomas Crawford described this total loss as "a river of national waste of almost incalculable value, daily and nightly passing our doors, which a united and intelligent effort ought to be able to stem." As the drinking habits of the people are on all hands admitted to be a potent factor in the production of preventible disease, it is scarcely necessary to say that temperance effort is an important branch of sanitary reform, which must on no account be neglected by members of the Sanitary Institute who are endeavouring to improve the health and happiness of the people.

**MEDICAL MORPHINOMANIACS.**—Dr. Rochard, who contributes to the *Temps* a letter on the need of institutions for the treatment of morphinomania in France, asserts that medical men and their auxiliaries the chemists constitute a good half of the total number of morphinomaniacs, though they naturally take every possible care to conceal the fact. He attributes the prevalence of this depraved habit among members of the profession and pharmacists to the facility with which they can procure the drug, and urges that since this is the case, restraint offers the only possible means of effecting a cure. He points out that in Germany and America special institutions have been devoted to the treatment of this degrading tendency, and he might have added that in England these cases are admitted to dipsomaniac asylums. In France no facilities of the kind are available, and victims to the habit are allowed to go on to the bitter end in their own homes. Suicide is a common termination, and appears to have become more frequent since the cocaine habit has been asso-

ciated with the other. It was hoped at one time the introduction of the cocaine habit would prove an antidote for the morphine habit, but the reverse has proved to be the case. The effects of the two drugs are in reality superimposed, and the result is a peculiar form of mental alienation manifesting itself by the mania of persecution and its usual concomitant, a tendency to suicide.—*Medical Press*.

INEBRIETY IN GREECE.—Dr. Joannes Phustanos sounds a note of alarm as to the threatened decadence and destruction of the Greek nation by alcohol. Though he denounces only ardent spirits, and does not include wine as an alcoholic beverage, he declares that the abuse of alcoholic drinks has of recent years been sadly extending in Greece, every day adding to the number of the victims. The remedies proposed consist of a reduction of the duty on spirituous liquors and the formation of temperance (moderate drinking) associations. In Britain, however, the increase of taxes on spirits has in the main lessened the sale, and abstinence societies have been the most successful in coping with this evil. This wail over the present extension of inebriety in Hellenic lands is the more remarkable that in former times Greece was the arena of heroic anti-alcohol legislation. The Greek vineyards were all but completely destroyed by the Turks in the fifteenth and sixteenth centuries. The Athenian lawgiver Draco sentenced drunkards to death, though Solon reserved that fate only for inebriates who were also magistrates, and who were found drunk in public. Pittacus ordained that drunkenness should entail a double punishment for crime. Locrian legislation showed some degree of consideration for the medical profession; for while all others who drank were liable to execution, on those who had the authority of a physician's prescription for tasting wine no capital or other penalty was inflicted. This praiseworthy attempt to stay the ravages of so perilous a disease in the classic battlefield of national freedom has our warmest sympathy, and we trust that never

again will the ancient epithet of "hard drinkers" be justly applicable to the Greek female population.—*British Medical Journal*.

A MEDICAL CORONER ON THE VALUE OF STIMULANTS.—Dr. Churton, holding an inquest at Nantwich on the body of Joseph Bowker, is reported to have spoken strongly on the value of stimulants. He described to the jury the beneficial effects of brandy and milk—was it the brandy or the milk?—in his own recent illness, which he declared had saved his life, and which were administered by his daughter, the effects of which very much astonished the doctors. It was said that Bowker had slipped on the stairs, and that brandy was administered to him with good effect. We can form no opinion of the fitness of brandy in this case. And we venture to think that even the coroner was scarcely entitled in this case to deliver a lecture on the use of stimulants to people suddenly taken ill or on his own case. This is not the use of inquests. The man died in this instance, and this did not say much for the efficiency of the treatment. People are too ready without advice from coroners to pour brandy down the throats of those slipping or dropping down. Sometimes it is right, but very often it is bad practice. Supposing, as is often so, the case to be one of apoplexy or epilepsy, the administration of brandy is likely to make matters worse. Coroners, and especially medical coroners, should stick to their own duties. One useful piece of advice a jury has just given in a case the report of which lies before us, where a poor man placed in a police cell for drunkenness passed gradually into apoplexy and died. The excuse was an awful one, and yet not without something in it—that 2,400 persons had been charged this year with drunkenness, and not one turned out to be a case of illness. The jury expressed the opinion that in all such cases the doctor should be called. We assume the jury mean in all doubtful cases. It would be rather hard on the police surgeon to call him up 2,400 times unnecessarily.—*Lancet*.

THE  
MEDICAL TEMPERANCE JOURNAL.  
April, 1891.

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Original Contribution.

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QUEEN MORPHIA AND HER VOTARIES.

*By the REV. MERILLE DE COLLEVILLE, D.D.*

WHEN, in 1889, I went to Paris as a representative of the National Temperance League, of the British Medical Temperance Association, and of the Society for the Study of Inebriety, I heard much about the "morphia passion" from professional men in a position to be fully acquainted with the every-day deeds of persons of high or low life. It was then hoped that this fresh infatuation would abate and soon disappear. On the contrary, morphinomania is pointed out by several Continental physicians as "rapidly invading," and as being in want of some National Anti-morphia League to cope adequately with its insidious temptations, and in want, besides, of a sufficient number of special Homes for morphinomaniacs, containing proper cells for the temporary, but strict, detention absolutely necessary for the treatment and cure of the mania victims.

Some years ago, Dr. Jules F. Rochard, of Paris, when registering, for the French medical world, the progress made by Queen Morphia amongst all civilized nations, prophesied that this progress would soon become as alarming as that of King Alcohol. Dr. Rochard's prophecies are partially realised, and, it is reported abroad, on the high road to perfect realisation. Formerly, on the Continent, with the exception of medical men and their sundry classes of assistants, morphinomania, as already indicated, was only to be met with amongst the higher classes, the nobility included.\* Now it is to be found not only in the castle and metropolitan mansion, but, over and over again, it has

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\* So far back as 1868 I noticed this mania amongst ladies of rank in Wurtemberg, where I resided for several years.

reached the threshold of the office, the workshop, and the servants' room. No man can say when nor where its advance shall be at a standstill, so numerous are those who with Q. Horatius Flaccus exclaim : " *Dulcere est desipere in loco !* " \*

In the French hospitals, as reported by the medical staffs, there are now seen numbers of workwomen and female servants, who, fully acquainted with the magical powers of Queen Morphia, their dreamy mistress, complain of fictitious ailments, or greatly exaggerate their real ones, to be favoured with as many hypodermic injections as their mis-spent eloquence will secure for them.

Dr. Landowski affirms that Germany has many thousands more votaries of Queen Morphia than the Gallic land. This poppy-crowned sovereign lady is by him reported as heartily beloved by crowds of courtiers belonging to the armies of H.M. the Emperor of the Germans. In the French regiments she has no admirers, but, unfortunately, according to certain statements recently published by a German of Wiesbaden (Dr. Schmidt) the metropolis of republican France is *favoured* with singular establishments, known to the initiated as " *Ladies' Puncture Institutes.* " In these mysterious and well-patronised resorts, *real* ladies are reported to be languidly reclining upon silken eider-down cushions, where they wait impatiently for the pleasure-producing punctures about to be administered by the well-practised hands of a matron, skilled in this strange abuse of a chemical compound.

In all countries where Queen Morphia has subjects it is chiefly women who enlist themselves as her devoted followers. When united in wedlock, they rarely try to conceal this intoxicating habit. On the contrary, most ladies have a strong tendency to consider this all-ruling passion as a defect to be proud of—as an elegant vice ; as a sort of worldly distinction of inestimable value and unattainable through any other sinful misconception of high life. Morphinised women are generally remarkable for the talent and energy they display when they advocate morphinism where they can so do with a chance of success ; they represent it as being one of the most charming caprices of " *La Mode,* " a terrestrial divinity, whom every member of woman kind is, of course, strictly bound to respect and obey, under penalty of immediate exclusion from all fashionable circles. Their wonderful eloquence and persistency succeed so well that the Right Honourable Corporations of Continental Chemists are most indebted to their fair advocates for the constant and fast increase of the eccentric armies of morphinomaniacs who pass through

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\* " *When convenient, it is sweet to be mad !* " (*Ad Virgilium Maronem, Hor., Ode xii. Book 4.*)



their dispensing warehouses and shops with orders that suffer no delays.

The fair sex of Morphialand often show a high degree of refined taste, by ordering, for their own secret use, jewels of every kind to be made according to their private indications, so that, wholly unsuspected, these jewels may be fit recipients for the bewitching poison, such as tiny phials and cases of minute implements necessary to introduce the substance into the human body; the phials, cases, and implements being generally most artistically-shaped, contrived and adorned, often with precious stones, by the best jewellers and lapidaries. The ladies of Morphialand display an incredible amount of adroitness to escape detection, when needed. This adroitness, which is often equal to a prestigator's sleight of hand, is the main obstacle in the way of preventing injections whenever the morphia slave, from sudden fancy or from acquired want, desires to enjoy the morbid, but sweet, effects of a puncture or two. There is no sort of artifice, deceit or slyness, that they do not practise, to procure morphia for themselves or their friends; to baffle the experience and forethought of physicians, and to extort thereby prescriptions, the very handwriting of which, says Dr. Jules F. Rochard, they even sometimes dare to falsify, changing dates and dosage figures, so that larger proportions of the poison may be obtainable from the chemist, or rather from unsuspecting young assistants. As the price of morphia even of low quality is comparatively high, that is, about 2s. 6d. per troy drachm, women of limited means contract heavy debts, sell off jewels, clothes, furniture, or pawn the same for a trifle in ready cash, to enable them to get the substance they crave for. Some of them practise pilfering and stealing, buy costly goods, when fully aware of their inability to pay, with the settled intention to barter them at 50 or 75 per cent. under real value, as did a French woman, who, being brought to extreme poverty through her morphinism, was suddenly prosecuted by the dispensing chemist who had sold it to her, on credit, for no less than £65 sterling of her favourite drug. The unfortunate woman, as friendless as is customary in such cases, lost the little that remained of her former understanding and judgment, and, entering into one of the very best store-houses of the Paris of fashion and wealth, not to pay her debt, but to get morphia, she stole, for immediate retail, goods of great value. Detected *flagrante delicto*, she was at once arrested, brought before justices and charged with the wilful perpetration of an infamous deed. The wretched victim of delusions did not care for her miserable position before God and men, but thought of one thing only, the vision, horrid to her, of the numerous days and nights to be spent under solitary detention without the supreme and all-powerful comforts of her daily and nightly

punctures. "Her vice," says Dr. Motet, "was all in all to her!" Queen Morphia ruins her victims as fatally as King Alcohol, and sometimes even more.

Men have more self-command, and greater dissembling powers. The physicians and surgeons who have become retainers of Queen Morphia usually do all in their power to conceal their degrading mania from the world, and above all from their patients, and their careful concealment explains quite naturally the reason why the real number of medical morphinomaniacs is unknown. It has been asserted, however, that the Continental morphinised medical men, with their various assistants of all classes, amount at the least, to more than one half of the "male" grand total. It is therefore probable that some time will elapse before a Continental Anti-Morphia League is formed, with a membership of medical practitioners as numerous as that of the "British Medical Temperance Association," or that of the "Society for the Study of Inebriety."

There is no passion, no persistent eagerness in seeking for relief and gratification, more tyrannical and irresistible than morphinism. When the usual time is at hand for a fresh introduction of poison under the skin, the maniac, if deprived of the drug, feels so uncomfortable that it amounts to an inexpressible anguish of mind and body. If prolonged, the pain becomes so excruciating that the sufferer feels as if it were inflicted by the wheel or the rack. As soon as the puncture has been made, the torture is rapidly changed into a most delightful and exquisite state of an intellectual and physical rapture. Newly-punctured people recover their cheerfulness, their bright looks, their vividness of perception and expression. Their mania being gratified the lovers of Queen Morphia enter into that order of sensations and conceptions named by the Greeks *Εὐφορία*; that is the power of easily putting up with all unpleasantness, of finding all persons and things perfectly charming. Unfortunately, this artificial blessedness is not accompanied by merely harmless sensations. The want, once created, becomes an unextinguishable craving; for, according to the frequency of injections, the organism of each morphinised person becomes soon affected, more or less, with disorders, often acquiring a most ominous character.

Morphinomania is as an all-invading vice, the effects of which are already creating a real peril for society. To avoid its multifarious evils, collective efforts should at once be made, for morphinomania is but another shade of intemperance and intoxication; it is not intemperance by cider, perry, beer, wine, spirit, alcohol, ether, &c., but intemperance by a solid, crystallised or liquefied substance, the most tiny of all the popular intoxicants that produce fatal temporary pleasures; and of a nature far more deadly than common inebriety. No medical treatment can

successfully cope with the impending scourge. Hygienic measures can only be resorted to where persuasion has failed; because, although this mania may sometimes be prevented, there is hardly any hope of saving the confirmed victim from untimely death; Queen Morphia being far more unmerciful, unrelenting, cruel and terribly expeditious, than is usually her cousin King Alcohol. After a few months' regular use the madness is nearly beyond the power of human help.

Foreign physicians and surgeons are all of one opinion about the fact that the morphinomaniac, although gifted with self-command, courage, and will, is destined to fall back, over and over again, into his vice, if left to his own repentance, resolutions, and efforts. When he attempts to give up suddenly his daily portion of the drug, such internal disorders are created in his body or limbs, that, becoming frightened at once, he feels compelled to resume the punctures and the thralldom they involve. Should the maniac proceed otherwise, and try to reform himself by gradually diminishing the dose of the alkaloid, he may, perhaps (after a series of the most strenuous exertions, supported by an immense display of will), be fortunate enough to reduce by a few grains his former daily ration; but, in spite of his praiseworthy efforts, some unlucky day always comes when a neurosis of some kind, an anxiety of a too affecting character, makes him forget his noble purpose, and the evil already overcome, the improvement gained during the few weeks or months of trial are then lost in an instant, and the relapse leaves the victim in a state seven times worse than before.

Out-door morphinized patients (that is, patients left at home under one or several doctors) can never be cured; because *total abstinence* (not therapeutics) being the only remedy known, the victims are thoroughly unable to apply it to themselves. Confinement, as my old temperance friend, Dr. Charles Pethihan, of Liege, would say, is therefore the only chance. In Continental Europe, and in America, establishments for the study and cure of morphinism have been created within the last few years. Of course their mode of treatment is necessarily of a more stringent kind than the treatment applied to inmates of inebriates' Homes, such as the Dalrymple Home in England. In Continental Europe, the first Morphinomaniacs' Home was founded at Schonberg-Berlin, in Brandenburg, Prussia, by Edward Lewistein, M.D.; and the next at Gratz, in Styria, Austria. In 1889, this Austrian home had 300 morphinized patients within doors, and nearly as many out-door ones, each awaiting a bed and a cell in the home; the treatment consisting in the most absolute abstinence from morphia, from its acetate sulphate, aqueous solutions and compounds. In the United States of

North America, no person is admitted who (under his or her signature) has not voluntarily promised thorough submission and ready obedience to the legal regulations of the house, whatever may be their immediate or future effects. This engagement once duly witnessed, the patient is taken to a private cell, similar to the cells of lunatics' asylums, and, there, in complete loneliness (but not without watching and ready attendance) is left free to call out for help, and many sink into a condition of frantic and raging despair when they come to realise that they are to be deprived of their favourite intoxicant. Of course, cell-confinement is not perpetual, but is gradually reduced in accordance with the patient's progress towards recovery.

French morphinomaniacs are not so well provided for as the Styrian ones. Almost wholly undisturbed by the medical staff and officials they suffer and die as well as they can. Some become insane; others commit suicide, which is but another act of lunacy, and rather a useless crime, since morphia would as safely and less tragically bring in death at no distant date, as it recently did with two medical French students. As a supposed antidote "*cocaine*" has been mixed with morphia, but with no better results than a greater total of self-destructions, preceded by the imaginary persecution mania. Prescriptions of "*Sparteïne*," to increase the action of the heart enfeebled by morphia, have been found wholly insufficient for recognised morphinomaniacs.

To oppose and even prevent the spreading of this new mode of self-destruction is to a certain extent possible, because, on the Continent, the power of delivering morphia to patients is exclusively in the hands of physicians, surgeons, obstetrical practitioners, apothecaries and dispensing chemists. Morphinism, as a mania, usually originates with the prescription from a medical man, and is continued through utterly superfluous deliveries of too-obliging chemists. Medical and surgical practitioners state that they cannot give up the judicious and cautious use of this powerful sedative. Persons affected with virulent tumors mostly fatal, such as cancer; or else affected with a state of mortification in which the part is not yet dead, such as gangrene, are declared to be in need of the alleviating influence of this poison. That morphia may or may not be really wanted for gangrenous or cancerous cases and others we do not pretend to say; but, on Christian and humanitarian grounds, we think it should be unlawful to prescribe it on the mere mention of a headache, toothache, nervous or other ailment, which might easily be relieved by some harmless process; and it should be one of the rules of the profession, that neither physician nor chemist be allowed to trust their patients, or customers, with any of the implements required for the proper introduction of a poison which belongs solely to the attending practitioner and to none else.



In France, the duty of pharmaceutical chemists, in so far as morphia and its various preparations are concerned, is one of easy performance. It merely consists in a strict obedience to the laws which direct and rule their learned profession—The Act of Germinal,\* *Anno Primæ Respublicæ* the Eleventh, an Act still in force, renders unlawful the delivery by pharmaceutical chemists of all remedies and medicaments without a prescription made *secundum scientiam et artem*, given legibly in the French tongue, in the handwriting of some Medicinæ Doctor or Medicinæ Bachelor† of one of the Medical Faculties in the land, and bearing the physician or surgeon's signature. Therefore a mere circular from the Office of the Justice Secretary of State, is all that is needed to put a stop to unlawful deliveries of morphia by apothecaries and pharmacopolists. Moreover, a new Bill has recently been introduced before the French House of Commons, the object of which is, if adopted by both Houses of Parliament, to supersede the Act of March-April, 1803. This new Bill contains the same prohibition as to the obtention of remedies and medicaments; that is to say, a fresh prescription shall be needed from a registered medical man for every fresh delivery, and shall so be under rather heavy penalties. As to wholesale drug merchants, a class of people now free in France from all responsibility on that head, they begin to be regarded by some French legislators as needing a control just sufficient to prevent them to sell or give any amount of pounds avoirdupois of the very same poison which the dispensing chemist can only deliver by troy grains, and on the sight of a regular therapeutical prescription. Such cases are frequent. For instance, according to Dr. Motet (of Paris), in the bedroom of a French patient were recently discovered 224 drams avoirdupois of morphia, bought from a manufacturer of pharmaceutical substances; a quantity sufficient to, wilfully or not, poison a whole regiment of Horse Guards. Such deliveries of deadly articles ought not to be possible. It is to be desired, therefore, that proper restrictions be enacted to do away with this most singular anomaly, without interfering with the freedom of honest trade.

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\* The month of Germinal of the eleventh year of the first French Republic began on the 22nd March and ended on the 20th April, 1803. The prize of £200 awarded in 1885 for the best paper on the reformation of the annual calendar, has much strengthened the hope that the imperfections of the present Gregorian one will soon disappear. For more information about expected results and about a new initial Meridian for all nations, apply to M. Flammarion, astronomer, Institute of France, Paris.

† Bachelors of medicine and surgery are, in France, popularly known by the title and style of "Officers of Health" (*Officiers de Santé*); but, their duties are not those of an English Medical Officer of Health.

## Miscellaneous Communications.

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### THE RELATION OF LIFE INSURANCE TO INEBRIETY.\*

By T. D. CROTHERS, M.D.,

*Editor of the American "Journal of Inebriety."*

As introductory to a brief study of this subject some general experience will make clear the conclusions which I wish to urge. During the past fourteen years I have been exclusively engaged in the institutional cure and treatment of inebriates. In the large number of persons of this class who have come under my observation many of them have been insured for large amounts in the best life insurance companies of the country. I have no statistics of the exact number, but I am confident that from a third to one-half of all the inebriates under my care carry insurance policies of greater or less amount.

While the object of all companies is to insure only sound healthy lives, it is evident that this is not the fact in a large number of cases. It has come to my knowledge that many of these cases have been insured after they became inebriates. In one case a man who had been twice under my care for periodical inebriety, secured an insurance of fifty thousand dollars, in the aggregate, in different companies. This man has drink paroxysms and requires treatment every year. In another case an incurable son (of an influential man) who had been under my care a number of times, died from pneumonia following a drink paroxysm; insurance policies of thirty thousand dollars were paid on his life. In another case an inebriate of twenty years' duration, secured fifteen thousand dollars in different companies, shortly after being under my care for four months. Within a year he died

from some obscure brain lesion, which came from a drink paroxysm. The insurance was paid.

In a general classification of the cases I have seen who were insured, something like the following seems to be very common: The largest class appear to be invalid or silent partners of mercantile houses; broken down merchants or clerks; men who had occupied business positions, or been prominent in professional circles, but have withdrawn for some reason. Most of these cases acknowledge moderate drinking, and give no evidence of excesses in public or in appearances. Many of these cases are secret drinkers, others are periodical and anticipate the paroxysm by providing for its secret indulgence, away from home in some distant city. After the attack they are temperate for a distinct time and give little evidence of their real condition. Often these cases are strong temperance workers, and make a public exhibition of their faith, and after the sudden disappearance to indulge in a drink paroxysm appear more enthused than ever for the cause.

A prominent temperance lecturer is a good illustration. He has always two or three "drink storms" a year, of a week's duration. The intervals are filled with most enthusiastic work for the reformation of others. He has a large insurance policy on his life and is considered a sound, healthy man. In another case a clergyman, with rich relatives, has a fifty thousand dollars on his life, and is a prominent prohibitionist, works with great energy and is a leader of much influence. This man has drink paroxysms in secret every spring and fall of the year. Many cases of active business and professional men drink to great

\* Read before the American Association for the Study and Cure of Inebriety, at the monthly meeting in New York City, December 10, 1890.

excess at irregular times and away from home. They come often to institutions for a short time under an assumed name, and go away restored. These cases always carry large insurance, and no doubt acknowledge moderate or occasional drinking to the medical examiner. In all probability these men recognise the future peril which may grow out of their secret excesses and thus seek protection from insurance.

In some of these cases the companies are at fault, in others the examiners; often the insured parties have not covered up or concealed the fact of drinking, but the drink storms have not been mentioned. Other cases are men of family, without business, having wealth, and living leisure lives. They are wine and beer drinkers at the table and claim to be only moderate users of spirits. Often they carry large amounts of insurance divided up among many companies. Often they are club men who are comparative fast livers, and while they seem not to be excessive drinkers, they are undoubtedly so in secret. They are generally incurable cases when they come for treatment. Recently a man of this class who had consulted me for drink excesses died, and his family received fifty thousand dollars insurance.

These cases are common in my experience. I fully recognise the fact that notwithstanding all the care and precautions of companies and examiners, a certain number of persons will obtain insurance who are bad, dangerous risks. Companies who admit moderate drinkers, and those who leave the question of risks in these cases to the judgment of examiners, will always have a large number of these dangerous risks, and a larger mortality. One such company became alarmed at their death rates, and from the report of a special examiner of risks, over ten thousand, cancelled in one year thirty-one policies of pronounced inebriates, who had been insured as sound and healthy. Another company who had practically refused moderate drinkers, but left the question open and depended on the judgment of examiners, cancelled twenty-six

cases of the same character all carrying large policies. The reason for these errors and mistakes is evident from the medical instruction to examiners by some companies. This is illustrated in the advice to draw a line in cases of moderate drinking at what is termed "Anstie's" limit of daily allowance, "equivalent to one and a half ounces of absolute alcohol; three ounces of ardent spirits; two wine-glasses of wine; one pint bottle of claret, champagne, or other light wine; three tumblerfuls of ale or porter; four or five tumblerfuls of ale or light beer." This is the limit of moderation in the use of spirits, beyond this there is risk of health and longevity, and this amount daily does not peril the health or life risk.

In face of the late advances in chemico-physiological science concerning the action of alcohol on the system such instructions are at least very startling. Nothing can be more theoretical, and assumptious, and flatly contradicted by both facts and experience. The attempt to map out lines of health and safety in the use of spirits is literally impossible. Many of the most incurable cases under my care have rarely exceeded one and a half ounces of absolute spirits daily. Many steady drinkers, who are incurable, seldom drink more, and in the majority of cases this is only an early stage of inebriety. Moderate drinking in this country is impossible, in the majority of cases. The excitement and revolutions of civilisation, climate and strains, either precipitate the drinker into an inebriate of some sort, or end in acute organic disease. The moderation seen among the people of Europe is *exotic* in this country and only exists a short time, except as a marked exception to the rule. Boundary lines of moderation and health in the use of any form of spirits as a beverage is like drawing boundary lines in the twilight between night and day. From my experience I believe there are many inebriates who could pass a good physical examination and truthfully allege that they drank less per day than this limit of Anstie's.

Recently a gentleman who had two

attacks of alcoholism, with pronounced delirium and delusions, and has drunk for years at night at home, was examined and given a large policy. He answered truthfully that he drank moderately, at night, for years. This the examiner thought of little importance, for the reason, probably, that he discovered no organic lesions to indicate any injury from this use of spirits. How far such errors of judgment are made in the well-appointed companies is difficult to determine, but the assumption that any moderate use of spirits is free from peril, reflects on the business soundness and scientific accuracy of the management of the company. Another source of error is apparent in those companies where the question of risks is left to the judgment of the medical examiner. As a rule, such examiners are among the best physicians in the country, and, while they are thoroughly honest and conscientious, may not be familiar with the latest teachings of science as to the action of alcohol on the system. The reason of this is, often such men are moderate or occasional users of spirits, and have formed fixed convictions concerning the use and effects of alcohol. Anstie's limit of health and moderation is to them a final truth because along the line of personal experience.

Not unfrequently such men have been followers of the Todd and Bennett school, and their earlier impressions of the value of alcohol are more or less final. Should the medical examiner drink to excess occasionally, he reasons from his own experience, and readily concludes no harm can come from it, and that the will power is sufficient to restrain the use of spirits at any time. If such a man has drunk to excess in early life, and had delirium, then abstained in a large degree, his judgment of the impaired health of persons in similar conditions will always be based on his own feelings, and that honestly and conscientiously. Such a man will readily pass an applicant who is a moderate drinker, or one who may have had delirium tremens, who gives no evidence of organic trouble. Such men never read

any new literature on this subject; but consider it settled, and all new views fanatical and unworthy of confidence. I have seen such men who challenged me to prove the bad risk of a moderate or previously excessive user of spirits, because they exhibited no evidence of organic trouble. In the South this is more common because the use of spirits is more general; therefore, I conclude that medical men who use alcohol in moderation, or have used it in excess in the past, have "astigmatised judgment," and, however acute they may be in other directions, are not, as a rule, capable of deciding the health risk of those who use spirits. The companies cannot provide against this, and no exhaustive physical examination can do much to relieve the burdens of such dangerous risks.

To diverge a moment. It is the repetition of all psychological advances, that the errors concerning alcohol, and its action on the system, should "live so long and die so hard." Even to-day authors continue to repeat theories which never had any real scientific foundation, and even their seeming reality was a mere shadow, which any clear study would have dissipated. Most of the theories respecting alcohol have come down entirely on the respectability of authors, who have repeated them, and are accepted as facts unchallenged and unknown scientifically. While the real facts concerning the action of alcohol can all be put on a single printed page, the literature covers hundreds of volumes.

The question of the use and abuse of alcohol from the standpoint of life insurance should be no theory but one of unquestioned fact. Not opinions or theories, however eminent the authority may be who endorses them, but facts and conclusions, sustained by every day's experience, and demonstrated with all the certainty of our present knowledge. From this point of view science has but one clear conclusion, namely, moderate drinking in any degree is perilous to health and longevity, and greatly increases the liability to disease. This is a fact



that can be demonstrated by figures. If companies continue to issue policies on the lives of moderate drinkers, or persons who acknowledge the use of spirits occasionally or regularly, the rates should be made proportional to the risks. Thus a moderate drinker at twenty would have the same comparative longevity as a temperate man at fifty, and a moderate drinker at thirty would live as long as a temperate man at sixty. These figures bring out the fact that where both are free physically from traces of organic disease, the liability to disease and death in the moderate drinker, at a certain age would be increased to a certain definite rate, represented by age, and he should in strict justice pay for this, the same as hazardous occupations are charged increased rates. While the moderate drinker may not become an excessive user of spirits, there can be no question of his increased liability to disease, and diminished vital resources, also natural capacity to resist disease. In an epidemic the moderate and excessive users of spirits are the first to suffer and die. In accidents the spirit drinkers recover more slowly, have a longer convalescence, and are more like to die than temperate persons. The experience of the accident insurance companies abundantly confirm this statement. Hospital statistics in every large city show that beer and spirit drinkers who seem to be in excellent health and vigour have a limited degree of vital power and a special tendency to acute organic disease from slight exciting causes. They are unable to bear strains and shocks of any kind. They die from apparent inadequate causes, where others suffering in the same way recover.

Recently a moderate spirit drinker, from a fall fractured the femur. He died from shock and fever two weeks later. A beer drinker had his hand crushed and died from gangrene soon after. A spirit drinker suffered a slight exposure from an alarm of fire in his house, and died from pneumonia in a few days. Each of these cases carried life insurance policies and two of them had been insured recently as good

risks and healthy cases. When temperate healthy men are insured in a company, and afterwards become inebriates, the policy should not be cancelled or invalidated, unless it can be shown that deception was used when the policy was made out. All such cases should be treated as those suffering from organic disease contracted after the policy was issued, and from conditions and exciting causes that could not have been anticipated when the insurance was placed.

Inebriety, like insanity or phthisis, may appear at any time from the application of its peculiar exciting causes, and should be regarded as these diseases are. The theory of wilful voluntary contraction of this state has no support in the scientific history of cases. Recently a temperate and very reputable lawyer became an inebriate after fifty years of age. He had carried a large insurance policy for years and had been temperate up to the time of the drink impulse. One company cancelled his policy, another company more honourable continued its insurance on the promise of the policy holder and his friends that every effort should be made for his recovery. He finally recovered and is in active life to-day. It is an injustice for a company to refuse to carry out a contract simply because a sudden peril comes to the life of the insured, as in this case. A gentleman who had been temperate and well up to the sudden death of his wife, began to drink to great excess. He had fifty thousand on his life, and one large company made unseemly haste to cancel its policy. Later this man died of paralysis; his spirit-drinking was only a symptom of this disease. An action was begun against this company and finally settled by a compromise. The failure of this company and its medical examiners to comprehend the first principles of science and equity in this case is a certain promise of their future failure. Another instance where a temperate man, after an attack of typhoid fever, developed acute dipsomania and two years later died of some obscure affection of the brain. Two out of three companies who held

policies on his life annulled them, and the medical director of one company was emphatic in his opinion that this man was only giving way to a *vice* which he could stop any moment. This physician was himself a moderate drinker. The third company continued its policy, its management recognising the purely physical nature of the case. Another question has come to me many times in the past few years. Where men who have drunk to great excess and reformed, for years living lives of strict sobriety, apply for life insurance. The physical examination reveals no organic disease and the question of the character of the risk is variously considered by medical examiners and companies. The facts which should govern in these cases are these: The disease of inebriety manifest in excessive use of spirits is thoroughly curable. The effects of the disease such as brain and nerve strain, with cardiac weakness, and lowered vitality, remain. The drink craze and impulse may die out, and the man be a total abstainer for life, but his longevity is impaired, his liability to disease is increased. Correct personal habits and careful hygienic living may do much to restore the lost capacities, and even a most minute physical examination will fail to find traces of this brain and nerve strain, yet they exist and any strain or exigencies will bring them out again. My advice in such cases is to issue a policy at such rates as are charged old men, along some approximate table of disease and mortality probabilities. The following case illustrates this: A man of good heredity was an inebriate during the war and for some time after, then reformed. Twenty years later he was refused a policy, from the fact that he had drunk to excess for a period long ago. He was forty-eight years of age and free from apparent disease. I think a policy issued at the rates charged for temperate men of sixty-five or seventy would have been fair and just to all. I think no fact is clearer than this, the inebriate and moderate drinker, to a greater or less degree, have and are wasting their vital resources, and age-

ing themselves beyond all present indications. These injuries do not appear from any coarse physical examination, and when this fact is applied to excessive users of spirits it is not disputed, but it is not so clear in the case of moderated and occasional users of spirits. Yet it is the same only varying in degree. In many ways this fact is sustained by the experiences of the sick-room and hospital, and should be fully recognised in practical life. Every advance in our knowledge of the action of alcohol on the brain and nerve centres brings additional confirmation.

Beyond all question there is much confusion in the theory and practice of both companies and medical examiners in this direction. An officer of a large company said that millions of dollars were lost every year from ignorance of the risks in these cases alone. Both companies who issue policies on moderate users of spirits and those who refuse to do so, are plunged into confusion of theory and practice, when these cases appear, they follow lines of action that are both pecuniarily and morally of damage to both company and insured. From a scientific standpoint there are some general conclusions, which point to a way out of this difficulty, and promise if followed up to develop some new lines of facts of the greatest possible value.

1. The moderate or excessive user of spirits who can pass a good physical examination should be given a policy on some basis proportional to the length of time he has drunk, and the extent of his drinking. Comparative accurate tables of mortality could be formulated on these cases which would fairly represent the probable duration of life. This would necessitate an accurate study of a large number of such cases, the conclusions of which would be of the greatest value to both science and the companies.

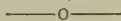
2. Policy holders, previously temperate, who become inebriates, should be the object of personal solicitude by the medical examiners, and required to use all rational means for recovery. Failure and neglect on the part of the

friends to use ordinary means for restoration should be the only reason for annulling the policy. This would also require accurate medical examination of such cases, and reveal lines of causes and conditions of disease which would enlarge the bounds of science, and bring a degree of accuracy where doubt and confusion exist at present.

3. Companies who refuse absolutely all policies on persons who have used spirits in the past, or do so at present, attempt too much, and fail in many cases. Such refusal should be based on the results of physical examination, and the question of the use of spirits should be regarded as an increased risk requiring increased rates. This would prevent the deception and losses which follow, and enable the company to determine many of the questions now left to the changing judgment of its medical examiners.

4. The object of all companies, to minimise the uncertainty and risks of all policy holders, and make the question of the mortality of its insured a reasonable certainty, is a reality when

the facts of alcoholic degeneration are studied above the level of opinions and theories. The greatest peril to life insurance to-day is the confusion of theory relating to the nature and action of alcohol. Every policy holder has to pay for this ignorance in the increased rates. The companies are perilled, and a degree of uncertainty exists which a larger and more accurate study of alcohol would remove. Companies whose managers and medical advisers are moderate drinkers are on the road to failure. Companies who assume that this question is settled, and the lines of health and disease can be mapped out, are failures already. Companies who regard this peril from alcohol as one requiring the most careful scientific study and cautious application of the apparent facts of to-day, will arrive at some rational lines of successful solution of the problem. Finally, the alcoholic question, from every point of view, demands a new and more exact study, to lift it out of the fogs and moss-covered superstitions of the centuries.



## COUNT LEO TOLSTOI ON WINE-DRINKING.

THE February number of the *Contemporary Review* contained a remarkable paper of eighteen pages by Count Tolstoi on "The Ethics of Wine-Drinking and Tobacco-Smoking," which deserves a careful perusal. We give a few extracts to indicate the drift of Count Tolstoi's arguments on the subject:—

What is the true explanation of the use which people make of stupefying stimulants and narcotics, of brandy, wine, beer, hashish, opium, and of others, less extensively indulged in, such as morphia, ether, fly-agaric? How did it first originate, and what caused it to spread so rapidly and to hold its own so tenaciously among all sorts and conditions of men, savage and civilised? To what are we to attribute the incontrovertible fact that wherever brandy, wine, beer, are un-

known, there opium, hashish, fly-agaric, &c., are sure to be common, while the consumption of tobacco is universal?

What is it that impels people to stupefy themselves? Ask any man you meet what it was that first induced him to drink alcoholic liquors and why he drinks them now. He will reply: "It is pleasant to do so; everyone drinks;" and he may possibly add, "to keep up my spirits." There is another category of persons—those who never take the trouble to ask themselves the question whether it is right or wrong to drink alcoholic liquors—who will urge as an all-sufficient reason that wine is wholesome, and imparts strength to him who drinks it—viz., they plead as a satisfactory ground a statement which has been long ago proved to be utterly false.



Put the same question to a smoker : ask him what first led him to smoke, and what compels or induces him to keep up the habit now, and the answer will be the same: "To drive away melancholy; besides, the habit is universal; everybody smokes."

The same or some analagous plea would most probably be advanced by those who indulge in opium, hashish, morphia, and fly-agaric.

"To drive off the blues; to keep up my spirits; because everyone does the same." Reasons of this kind might, without glaring absurdity, be advanced as ground for the habit of twirling one's fingers, of whistling, of humming tunes, of playing a tin whistle; in a word, of occupying oneself in any one of a thousand ways that do not entail the destruction of natural riches, nor necessitate an enormous expenditure of human labour, of doing something, in fine, which is not fraught with mischief to oneself and others. But none of the habits in question are of this harmless character. In order that tobacco, wine, hashish, opium, may be produced in sufficient quantities to keep pace with the present enormous rate of consumption, millions and millions of acres of the best soil, among populations sorely in need of land, are set apart for the cultivation of rye, potatoes, hemp, poppy, vines and tobacco, and millions of human beings—in England one-eighth of the entire population—devote all their lives to the manufacture of these stupefying stimulants. Nor is this all. The consumption of these products is, beyond all doubt, highly pernicious, is fraught with terrible evils, the reality of which is admitted by all—evils that work the ruin of more men and women than are laid low by all the bloody wars and infectious diseases that decimate the human race. And people are aware of this; so perfectly well aware of it, indeed, that the statement cannot for a moment be credited that they set in motion the baneful cause of it all merely to drive away melancholy, to keep up their spirits, or solely because every one does it.

It is obvious, therefore, that there

must be some other explanation of this strange phenomenon. On all the highways and byways of life we are continually meeting with affectionate parents who, though perfectly ready to make any—the heaviest—sacrifice for the welfare of their offspring, do not hesitate one moment to squander upon brandy, wine, beer, opium, hashish, and tobacco, a sum of money amply sufficient to feed their miserable, hunger-stricken children, or at least to insure them against the worst kinds of privation. It is perfectly evident, therefore, that the man who, placed by circumstances or his own acts in a position that imposes upon him the necessity of choosing between the infliction of hardship and misery upon the family that is dear to him on the one hand and abstinence from stupefying stimulants and narcotics on the other, chooses the former alternative, is impelled to this choice by something far more potent than the desire to keep up his spirits, or the speculative consideration that everyone else does the same. And so far as I am competent to hazard an opinion—and my qualifications consist solely in a theoretical knowledge of the judgments of others, gleaned from book-reading and in close personal observation of men, of my own self in particular at a time when I still drank wine and smoked tobacco—I would formulate that potent cause as follows:—

Man, during the course of his conscious existence, has frequent opportunities for discerning in himself two distinct beings, the one blind and sensuous; the other endowed with sight, spiritual. The former eats, drinks, rests, sleeps, perpetuates itself, and moves about just like a machine duly wound up for a definite period; the seeing, spiritual being, which is linked to the sensuous, does nothing itself, but merely weighs and appreciates the conduct of the sensuous being, actively co-operating with it when it approves, and holding aloof from it when it disapproves, the actions of the latter.

All human life may be truly said to be made up of two kinds of activity—



(1) The bringing of one's conduct into harmony with the dictates of conscience; or (2) the concealing from oneself the manifestations of conscience in order to make it possible to continue to live as one is living.

Some people are engaged in the former occupation, others in the latter. There is but one way to accomplish the former—moral enlightenment, increase of light within ourselves, and of attention to what the light reveals. There are two methods of attaining the second object—that of concealing from ourselves the manifestations of conscience; an external and an internal method. The former leads us to engage in occupations calculated to withdraw our attention from the teachings of conscience, while the latter consists in darkening the conscience itself.

External means do not entirely draw off the attention, or wholly prevent it from recognising the discord between actual life and the requisitions of conscience. And the knowledge of this antagonism hinders people from living; in order, therefore, to remove this obstacle, and continue to live irregularly, they have recourse to the unfailing internal method of darkening conscience itself. And this is effectually accomplished by poisoning the brain by means of stupefying stimulants and narcotics.

It is not inclination, therefore, nor pleasure, nor distraction, nor amusement, that gives us the clue to the universal habit of consuming hashish, opium, wine, and tobacco, but the necessity of concealing from oneself the records of one's conscience.

One day, while walking along a street, I passed by a number of droschky drivers, who were gathered together in groups conversing, when I was struck by the remark which one of them addressed to another—"Who doubts it? Of course he would have been ashamed to do it if he'd been sober."

A sober man scruples to do that which a drunken man will execute without hesitation. These words embody the essential motive that induces people to have recourse to

stupefying drugs and drinks. People employ them either for the purpose of stifling remorse after having performed an action disapproved of by their conscience, or else in order to induce a state of mind in which they shall be capable of doing something contrary to the dictates of their conscience, and to which the animal nature of man is impelling him.

I recollect being struck by the statement made by a man-cook on his trial for the murder of the old lady—a relative of mine—in whose service he had been living. From the account he gave of the crime, and the manner in which it was perpetrated, it appears that when he had sent his paramour, the maid-servant, out of the house, and the time had come for him to do the deed, he seized a knife and repaired to the bedroom where his intended victim was; but as he drew near he felt that in his sober senses he could not possibly perpetrate such a crime. "A sober man has conscientious scruples." He turned back, gulped down two tumblers of brandy that he had provided beforehand, and then, and not before, felt that he was ready to do the deed, and did it. Nine-tenths of the total number of crimes that stain humanity are committed in the same way: "First take a drink to give you courage."

Of all the women who fall, fully one-half yield to the temptation under the influence of alcohol. Nearly all the visits made by young men to disorderly houses take place when the faculties have been blunted and dulled by intoxicating liquor. People are well acquainted with this property of alcohol to deaden the voice of conscience, and they deliberately make use of it for this very purpose.

Nor is this all. Not only do people cloud their own faculties, in order to stifle the voice of conscience, but, knowing what the effect of alcohol is, whenever they wish to make other people perform an act that is contrary to the dictates of their conscience, they purposely stupefy them, in order to render them temporarily deaf to its remonstrances.

About this there is no conflict of

opinion. It is admitted on all hands without demur or reserve. And yet, strange to say, whenever the consumption of stupefying stimulants does not result in such acts as robbery, murder, violence, &c.; whenever they are indulged in, not as a consequence of remorse for terrible crimes, but by persons who follow professions which we do not regard as immoral, and are taken not all at once in large quantities, but continually, in moderate doses, it is taken for granted—no man can say why—that these stupefying stimulants have no effect upon the conscience, and certainly do not stifle or even deaden its voice.

Thus it is taken for granted that the daily consumption by a Russian in easy circumstances of a small glass of brandy before each meal, and of a tumbler of wine during the repast; by a Frenchman of his daily allowance of absinthe; by an Englishman of his port wine and porter; by a German of his lager-beer, and the smoking by a well-to-do Chinaman of a moderate dose of opium, besides a certain quantity of tobacco, are indulged in solely for pleasure, and have the desired effect on the animal spirits, but none at all on the conscience.

It is furthermore taken for granted that if after this customary stupefaction no robbery, murder, or other heinous crime is perpetrated, but only foolish and evil acts are performed, these acts are spontaneous, and are in no way the result of the stupefaction. It is taken for granted that if these persons committed no criminal act, they had therefore no need to gag their consciences, and that the life led by people addicted to the continual use of stimulants and narcotics is in every way excellent, and would have been in no respect different if these people had abstained from thus clouding their faculties. It is taken for granted, in fine, that the continuous consumption of stupefying stimulants does not in the least obscure the conscience of those who thus indulge in them.

On the one hand, then, everyone knows by experience that his frame of mind, his mental mood, undergoes a

change after he has indulged in alcohol and tobacco, and that what he was, or would have been, ashamed of before this artificial excitation, he has absolutely no scruples about afterwards; and that after every sting of conscience, after the least painful of its pricks, one is possessed by a violent longing for some stimulant or narcotic; that under the influence of such stimulants it is very difficult to survey one's life and position; and that the continual consumption of an invariable moderate quantity of stimulants produces precisely the same kind of physiological effect as the instantaneous consumption of an excessive quantity. And, on the other hand, people who indulge moderately in drinking alcohol and smoking tobacco flatter themselves that they take these things, not at all to silence their conscience, but solely to please their taste and obtain pleasure.

But one has only to give the matter a little serious, unprejudiced consideration—without attempting to cover and excuse one's own action—in order to acquire the conviction, in the first place, that if a man's conscience be deadened by his taking a large dose of alcohol or narcotic preparations, the result is identical when he indulges in them continuously, though in smaller doses; for stimulants and narcotics always produce the same physiological action, which begins by abnormally intensifying, and ends by proportionately dulling and blunting the activity of the brain; and this, independently of the circumstance whether they are taken in greater or smaller quantities. In the second place, if these stimulants and narcotics possess at any time the property of benumbing the conscience, they are equally endowed with this property at all times to the same extent if murder, robbery, and violence be perpetrated under their influence, when only a word is spoken, a thought harboured, a feeling cherished, which would not have been spoken, harboured, or cherished without their influence. In the third place, if these brain poisoning stimulants and narcotics are indispensable to robbers, brigands, and

professional courtesans in order to drown the voice of their consciences, they are not less necessary to persons who follow certain other professions which are condemned by their own consciences, although regarded as legal and honourable by the vast majority of their fellow-men.

In a word, it is impossible not to see that the habit of indulging in intoxicating stimulants in large or small doses, periodically or continuously, in the higher or the lower social circles, is always induced by the same cause, namely, the need of muffling the voice of conscience, in order not to be compelled to take notice of the jarring discord between actual life and the requisitions of conscience.

A man who works is always conscious of two beings about himself—the one who is engaged in work, and the one who sits in judgment upon the work done. The severer the judgment he passes, the slower and the more perfect is the work done, and *vice versâ*. If the judge be under the influence of a stimulant or a narcotic, there will be more work done, but of an inferior quality.

People drink and smoke therefore not merely for want of something better to do to while away the time, or to raise their spirits; not because of the pleasure they receive, but simply and solely in order to drown the warning voice of conscience. And if that be so, how terrible are the consequences that must ensue! In effect, just fancy what a curious building the people would construct who, in order to adjust the walls to a perpendicular, should refuse to employ a straight plumb-line, and for the purpose of measuring the angles should object to use an ordinary carpenter's square, preferring to the former a soft plastic plumb-rule, that bends and adjusts itself to all the irregularities of the walls, and to the latter a carpenter's square that folds and yields to the touch and adjusts itself equally well to an acute and an obtuse angle!

And yet this is exactly what is done in every-day life by those who stupefy themselves. Life is not regulated by conscience, it is conscience that plies

and adjusts itself to life. This is what we see taking place in the life of private individuals. That it is which also takes place in the life of all humanity—which is but the sum total of the lives of private individuals.

Terrible indeed are the evils that have been more than once described to us, which opium and hashish bring upon those who consume them; terrible, likewise, are the effects—which we can every day observe—of alcoholism upon the inveterate drunkard; but more terrible beyond comparison for the entire community at large are the effects of moderate drinking and smoking, habits largely indulged in as harmless by the majority of the people, more especially by the so-called educated classes of our social world.

These consequences cannot be otherwise than terrible if we admit, what it is impossible to deny, that the guiding force of the community—political, administrative, scientific, literary, artistic—is wielded for the most part by men who are not in a normal condition of mind—by men who, to call things by their right names, are in a state of intoxication. It is usually taken for granted that a man who, like most of the members of our well-to-do classes, indulges in a little spirits every day before each meal, is, during the hours of work next day, in a perfectly normal state of mind. This is a grievous error. The man who yesterday drank a bottle of wine, a tumbler of vodka, or two large measures of beer, is to-day in a state of subsiding intoxication or incipient sobriety, a state of dejection which follows upon yesterday's excitement; consequently, he is mentally oppressed as well as depressed, and this feeling is but intensified by smoking. A man who drinks and smokes moderately but regularly every day requires—in order to restore his brain to its normal condition—at least one week, probably more than a week, of total abstinence from spirits and tobacco. Now, no smoker or bibbler ever voluntarily abstains for such a long time.

It follows, therefore, that by far the greatest part of all that is done in this world of ours, both by those whose



profession it is to guide and teach others, and by those who are thus guided and taught, is done in a state of ebriety. And I trust this will not be taken either as a joke or an exaggeration: the extravagant disorder, and especially the senselessness and folly, of our life, springs mainly from the state of continuous inebriation in which the majority of people deliberately place themselves.

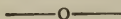
At no other period in the world's history, I feel convinced, did mankind lead an existence in which the dictates of conscience and their deliberate actions were in such evident conflict as at present.

It seems as if the human race in our days had got fastened to something that is holding it back, impeding its progress. There would seem to be some external cause which hinders it from attaining the position that belongs to it of right, in virtue of consciousness. The cause in question—or, if there be several, the main cause—is the physical state of stupefaction to which the overwhelming majority of human beings reduce

themselves by means of alcohol and tobacco.

The deliverance of humanity from this terrible evil will mark an epoch in the life of the race, and, apparently, this epoch will arrive in the near future. The evil is already recognised. A change in the consciousness of men in reference to the use of brain-poisoning stimulants and narcotics has already taken place; people are beginning to realise the terrible mischief they produce, and they are manifesting this feeling in acts; and this imperceptible change in their consciousness must inevitably bring in its train the emancipation of humanity from the influence of all such brain-poisons. This emancipation of mankind from the thralldom of brain-poisons will open their eyes to the demands of their consciousness, and they will forthwith begin to put their life in harmony with its dictates.

This process seems to have already begun. And, as is usual in such cases, it is beginning in the higher social classes, after all the lower orders have become infected with the evil.



## ALCOHOLIC HEREDITY IN DISEASES OF CHILDREN.\*

By T. D. CROTHERS, M.D.

A. B. CAME under my care for home treatment for periodic inebriety. He has used wine on the table at meals for twenty years; for ten years past he had drunk in paroxysms. His wife used wine on the table also, and during pregnancy and lactation had used both beer and wine freely. He had two children, one a girl of eight years, the other a boy five years old, both invalids, and had been under constant medical care from infancy, the general diagnosis being scrofula and general anæmia; and both were of pale and delicate appearance, extremely excitable and nervous.

They had continuous irritation of the stomach, from an unrestricted diet of all kinds of foods and drinks, except wine and beer; were very passionate at the slightest opposition to their wishes, and after a period of rage would be greatly exhausted and have a distinct fever for a day or more. The girl had attacks of emotional religiosity, in which she manifested great sorrow and melancholy at her sins, and asked the prayers of all persons she came in contact with; at other times she was precociously bright, and irritable at any opposition to her wishes.

The family physician had no faith in heredity, and treated these various conditions as so many symptoms of threatened organic disorders which his

\* Read before the Section of Diseases of Children of the American Medical Association.



skill and remedies prevented from gaining farther. Both had suffered from rubeola and scarlatina, and were supposed to have never fully recovered. Bronchitis, enteritis, gastritis, neuritis, and various heart diseases, were constantly threatening, and as constantly averted. Finally, death of the physician brought a new man who recognised the alcoholic heredity of these cases, and ordered them to the country, where the diet was restricted, and enforced exercise outdoors and frequent bathing when it could be carried out.

These children had marked nerve and brain instability, with low vitality, and were neurotics, which would of necessity develop insanity, inebriety, or any other form of nerve and brain degeneration; and the rational treatment should have recognised this condition, and given special attention to the diet and surroundings, and the avoidance of all existing causes that would stimulate the brain and nervous system.

A physician wrote to me that he had given tincture cinchona to a neurotic child of one year of age, for slight fever which resembled malaria. In a short time the child would cry for the medicine, and would only be satisfied for a little time after it was given; on one occasion it took at once a two-ounce mixture of this drug. He changed to other tonics, but found that nothing would satisfy the child but tinctures. The child was found to have an alcoholic mother, who died soon after its birth, and the alcohol in the tinctures aroused an organic memory which had been inherited.

In private practice, some years ago, I treated a little boy for over five years for the most confusing and varied disorders and diseases that it was possible to have; he recovered from one disorder only to be prostrated with another. None of them were well defined or clear, and much difference of opinion prevailed among the numerous medical men who were called in consultation. At puberty this boy became a pronounced dipsomaniac, suddenly, and without any special temptation. Years after

he came under my care, and was a chronic case. From a study of his history it was ascertained that his father was an inebriate, and died before he was born. Here was an alcoholic heredity, which had escaped notice, and where the alcoholic neurotic symptoms were not understood.

I think we may confidently expect of the practice of medicine that in the near future such cases will be treated so successfully that the alcoholic or insane predisposition will be warded off. I have heard of numerous instances of children from infancy upward to puberty, upon which alcohol in any form and in small quantities acted as a hypnotic; in some cases no other medicine could be tolerated, and in some alcohol heredity was present, in others it was not clear.

In the study of the early history of inebriates, a great variety of diseases common to childhood appear, and seem to have been more intense than in other children. Such cases seem to have suffered more severely than others from nutrient disorders, shocks, and traumatism; they are freighted with some heredity or predisposition to particular forms of degeneration; the organism has received a certain bias, from which it cannot escape. Alcohol, of all other drugs, seems most potent to impress cell growth and function.

No fact is more firmly established than that alcoholic ancestors will transmit to their children a defective brain and nerve power. The form and shape of this defect and its manifestations will vary widely.

In many cases it may not be prominent until after the higher peripheral brain has reached a certain development, especially in the growth of the emotional and inhibitory centres. In others this defect is seen in infancy, in an abnormal hyperæsthesia of the senses, and nutrient disturbances. Some children manifest irritation at all sounds, and all changes of light and surroundings, by continuous crying; the skin or alimentary canal is also very sensitive, and various skin disorders and nutrient troubles follow.

Low powers of vitality and slow irregular growth are common. This condition may continue for years, then gradually disappear, and only re-appear at puberty, or later, in some distinct form of degeneration. Sometimes a marked neurasthenia and anæmia appear in early life and continue up to puberty, then break out into some disease, or develop some hereditary malady.

Another class of children are noted, who come from alcoholic ancestors, by their precocious development of brain and nerve force. They exhibit powers of brain receptivity and instability that is called genius, which give way early to some disease or form of nerve degeneration from various causes. Inebriety, insanity, or both, are very common sequels. Alcohol or opium in any form is almost always a grateful remedy, and is demanded in many instances by the patient. The use of bitters that contain large quantities of spirits is also very popular, and an unconscious organic memory is awakened that rarely dies out.

In some children this craving for spirits is manifest very early. A case of this kind was brought to my notice by Dr. Smith of New York, where an infant of two months old could only be quieted by a few drops of spirits. Its taste was so pronounced that it would stop nursing at the sight of the person who gave the spirits, and cry until it was gratified. Fortunately, such instances are not common; but the abnormal tastes of children, and their extreme sensitiveness or obtuseness to sensory impressions, and low powers of vitality and recuperation, are often clear symptoms of an alcoholic impression from ancestors.

This alcoholic heredity will be seen in children that manifest extremes of activity, particularly where there is a tendency to the sudden liberation of nerve energies, as in violent passion (grief or joy) or work, play, or study, which is followed by extreme prostration. The child is said to be sullen, morose, or melancholy, then suddenly manifest the other extremes, indicating a great instability of brain cells

and functional control. Its life seems to be threatened with fevers, prostrations, and inanitions, accompanied with mental irritations and wandering neuralgias that tax severely the skill of the physician. These conditions may follow other heredities, but they always point to a degree of nerve and brain degeneration or retarded development, and defective co-ordination, that must be recognised in the treatment.

In all cases where alcoholic ancestors, even back to the second generation, can be traced, there are certain predispositions which must be considered in the treatment.

*First.* A tendency to exhaustion from feeble vitality, and low power of restoration. Tonics and nutriment that have a direct stimulant action on the brain should not be used, such as alcohol and opium, and meat broths. These remedies have a tendency to still further exhaust the vital forces, paralysing the nerve centres and increasing the carbonaceous matters of the system.

*Second.* An instability of cell and nerve function, and strong predisposition to develop into some particular form of degeneration, which is practically an exhaustion of the higher brain centres, with craving for relief. All stimulants and remedies which act on the brain centres increase the existing degeneration.

*Third.* There is a special affinity for all nerve stimulants by those higher brain centres. Their use constantly interferes with the natural development of brain energy from food. Thus alcohol, tea, coffee, and other substances, have a peculiar delusive effect.

From these facts it will be obvious that the diseases of children of alcoholic parentage are far more complex, and require greater care. In addition to whatever disease they suffer from, there is always neurasthenia and defective control of the brain centres, which may come into prominence at any moment, from causes both known and unknown. This hereditary bias and neurotic instability enters into all cases.

The general principles which should govern in the treatment may be grouped

as follows :— 1. No form of alcohols are safe, and narcotics of all kinds should be used with great care. 2. The diet should not include meats of any kind, because of their stimulating character; while meats contain much food force, they act as stimulants to a brain already over-stimulated and exhausted, and increase the peril of nervous disease. The pathological tendency of all these cases is to become alcohol-takers, and meat-eaters, hence the diet should always be non-stimulating and farinaceous, and should be carried out with military regularity. 3. The hygienic treatment is also of the greatest importance; every means and measure which can build up a system, and avoid brain and nerve stimulation, is required. 4. Cases of this character should be guarded against every possible extreme, both in the surroundings

and physical conditions that are under the control of the physician. The tendency of all energy and nerve force is to pass off in explosions, which should be counteracted; the diseases they suffer from show this tendency to concentrate and become intensified in certain directions, also to manifest distinct exacerbations. Finally, the fact of an alcoholic heredity in disease of children that we are called upon to treat, gives a wider therapeutical range of possibilities, both in direct and preventive medicine.

Recent studies of alcohol cases show that over seventy per cent. are directly inherited. If this is confirmed by later studies, the treatment of inebriety will in the future begin in infancy, and the higher science and art of medicine will win its greatest triumphs along the line of prevention.



## IRISH DOCTORS ON ALCOHOL.

DR. RINGROSE ATKINS presided on the 13th January at a meeting of the Waterford Branch of the Church of Ireland Temperance Society, and introduced Surgeon H. G. Croly, of Dublin President of the Irish Royal College of Surgeons, who was received with great applause, and delivered an interesting address.

Surgeon CROLY said he had often studied the question—was alcohol necessary to the health of the individual? and he had come to the conclusion that it was not necessary. It was not a necessary part of the daily food of the individual. He would even go beyond that, and say that alcohol was not only not necessary as a food, but that it was injurious to the health of the individual. As regards moderate drinkers—and he supposed there were some of them in his audience—they should remember that the man or woman who commenced on moderation, or a little drink at a time, very often became drunkards in the end. He knew of no one way in which alcohol increased brain power, and what they learned from a study of its

effects on the brain was not that it was a benefit, but that it was injurious to the brain. Now, that was an important thing to know, because there existed an old-fashioned idea that a little of it was good for the brain. He had often been consulted on the point, and he invariably said that the men having brain-work to execute would be much better off if they never took alcohol. Now, as regards the effects of alcohol physically, a great friend of his had tried an important experiment. He formed two gangs of men, and set them at work. One gang was supplied with alcohol, the other was not. They were employed at the same class of work, for the same time, and under all conditions they were identical, except as regards the drink. Well, when the test was over it was found that the men who had received no alcohol did the most work. The men who took the alcohol then said, "Let us do the same work without the drink," and they were allowed to do so, when it was found that they accomplished the task in quicker time and better form than when they were supplied with



stimulants. The non-alcoholic workers only drank tea. Another friend of his, who was very fond of long walks and of attending coursing meetings, assured him that he had long since abandoned the alcohol that used to fill his flask and substituted cold tea instead. That gentleman also said that it was not now an uncommon thing to find people who patronised such places drawing out their tea flask, and it was usual to hear one say to another, "Have a drink of tea?" Tea was now taking the place that whisky occupied before. He knew that General Lord Wolseley was a great advocate for temperance, and who said that in all his campaigns, there were no men who stood the fatigue and hardships better than those whose only stimulant was tea. As regards the treatment of persons addicted to the use of alcohol, he was convinced that the only cure was to stop it. He did not believe that there was any danger of injury by suddenly giving it up. A few nights ago he was called to a case of that kind—a very bad one—and when he arrived at the house—the patient was a lady—he wrapped a cloak around her, and took her off to hospital in a cab. She was now doing very well. That was the only way to stop it; otherwise the person would go on taking the drink until it would lead to *delirium tremens*. Dr. Benson, who was a well-known advocate of temperance, and a high authority on the treatment of people suffering from its effects, would not give a single drop of drink to the patient. It was a terrible evil, and there was scarcely any family who had not some of its members or connections addicted to drink. Now, he agreed with Dr. Benson and other medical men that a person can stop the use of alcohol without any injurious effects following to his health. The extent to which drinking caused disease could hardly be understood; Sir Andrew Clark declared that three-fourths of the diseases of fashionable life was due to drunkenness; while Dr. B. W. Richardson, who had made the drinking question a special study, and was an ardent advocate of temperance for many years, concurred in that

opinion. He (Surgeon Croly) had said enough to show that alcohol was not necessary as a food; that so far from assisting, it prevented a man from doing as much manual labour as he would be able to perform without it; that it prevented the development of brain power, and was generally injurious to the system. Then again its effects were seen in the cases treated in hospitals. They knew that the accidents that occurred, and the people who suffered from them, and were brought into these hospitals for treatment—the great majority of these cases were caused by intemperance. The feeling of the country was now growing in favour of temperance. The clergy advocated it, and so did a very large proportion of the members of his own profession. There were, of course, some medical men who were afraid to speak out, but it had been over and over again demonstrated that the effects of alcohol from a medical point of view were pernicious and injurious. They had only to look at the drunkard himself to see that; in his physical condition, and in his home, they observed the havoc it caused. Some people were very careful of themselves in regard to the way they lived. He had often been asked by people who were about to take a Turkish bath as to how hot or cold it should be, and so forth. They never questioned him as to the proper temperature of a glass of punch. It would greatly lessen the expenses and work of their hospitals if people became sober; it was the drinking people who furnished the majority of the cases that entered these institutions. What he had said would, he hoped, be of some use in encouraging them to persevere in the good work in which they were engaged, and if his words had the effect of inducing even one person present to take the pledge, he should feel amply rewarded.

On the same evening (January 13) Dr. R. Morton, of Nenagh, delivered a lecture at Parsonstown, on "The Medical Aspect of the Temperance Question." He observed at the outset that it was said they wasted too much time talking about the evils of



intemperance which were apparent to everybody. It was not, however, always remembered that intemperance existed in two forms—as a vice and as a disease. In the former, drink is taken for a man's own gratification, but in the latter it was taken against his inclination. Nothing could save such a man but total abstinence. Then it was said that they seemed to consider intemperance the only vice. They did not do anything of the sort. The pity of it was that intemperance takes the brightest and best of men very often. Drink was the parent of almost every other vice—one of the exceptions being perhaps avarice. Why was this substance so highly sought after? Well, they knew in the first place alcohol was clothed in the most palatable form. The ingenuity of man had been exercised to produce it as seductively as it could be made. It was engendered in us for generations. Regarding the question of heredity in diseases produced by drink, he pointed out that about 16 per cent. of our idiotcy was attributed to drunken parents; and then there was moral degeneracy, by which he meant the want of decision of character—the tendency to drink and insanity. In dealing with the arguments in favour of the use of alcohol, he asked was it really an article of diet? What want in the human economy is supplied by alcohol? Long ago it was given up that it could be called a constructive food—that is, it would never add to our growth nor repair any substance broken down. It was not heat-giving, but on the contrary it lowered the temperature, as could be practically tested by the aid of a thermometer. Was it fat-producing? No; what was produced was multiplication of fat cells where they should not be, and this was called fatty degeneration. Man's superior reason had given him great privileges. It had given him the power of extending his investigations into the past and through the universe; but it had also brought sorrow and anxiety, remorse for the past, doubt and hope for the future, brain worrying and exhaustion. There was a craving to satisfy some discontent,

and consequently he resorted to alcohol, or opium, and the latest of all, cocaine. Of these alcohol is the chief, because from its delusive sensations it seems to satisfy the want. It has the power of blunting sensibility: and therefore, was it not natural to suppose that it was from this the popular idea arose that it was a good thing for a man to use when in trouble? But of what kind was the cure? It makes his sorrow exaggerated and ridiculous; or, if his senses are blunted, he thinks no more till he wakes and finds his sorrow as it was before, and with his nervous system unstrung. Another reason why alcohol was used was because people are absolutely ignorant of its true effect. The Americans have given us the lead, with their usual practical common sense. While we have been striving to pass a law for local option for the restriction of the sale of drink, they have passed a law, beautiful in its simplicity, that scientific instruction be given in every public school on alcohol. But then it was not to be wondered at we were ignorant. It was only within the last twenty years we have come to a proper understanding of some of its delusive actions. In a text-book on therapeutics it had been stated alcohol had the power of generating nerve energy. If it had, it would be most valuable. If a man takes alcohol it increases the beating of the heart, and it was thought that would increase the nerve energy. It was soon found, however, that each nerve leading thereto bears two opposing forces, one impelling, the other restraining. The heart could be made go fast by increasing the one or weakening the other. This is what alcohol does; and then the arteries expand, and good arterial blood flows through the system—no doubt a very useful thing in cases of sickness or disease. No heat can be added by alcohol. When a man is drunk his temperature is dangerously low. The sensation of strength was another delusion. A man feels strong after taking a sufficient quantity of alcohol to produce intoxication, and even attempts to undertake what no man in his senses would ever undertake. When

an athlete wanted to bring his strength to the highest point he underwent training, during which he was practically a totally abstainer. People will say temperance is all very well, but total abstinence is unnecessary. It was necessary for the intemperate and

the weak. He believed the majority of moderate drinkers would not become drunkards, but how can we know who will and who will not? All he knew was that as long as he was in the total abstinence section he was safe.



## AMERICAN PHYSICIANS AND TEMPERANCE.

UPON no one does responsibility for the continuance of the widely prevalent, injurious social drinking usages, rest more heavily than upon the members of the medical profession. Medicine, in the true sense, is preventive as well as remedial. Among the agencies productive of disease, physical and moral, intoxicating liquors are pre-eminent. The attitude which physicians as a class assume toward the use of intoxicating beverages, personally and professionally, therefore involves very largely, for good or ill, the interests of the temperance reform.

There have been from the beginning, since the time of Dr. Benjamin Rush, and are now, a few eminent American physicians who have done much to encourage, by both example and precept, the cause of temperance. But they have been and continue to be a small minority of the profession as a whole. A very large majority of physicians upon social and festive occasions, at their banquets, &c., do not hesitate to provide freely and to partake of intoxicants. The International Medical Congress, held last year in Berlin, appears to have been a striking and most unseemly object-lesson of this kind. A Berlin correspondent of the *Philadelphia Medical and Surgical Reporter* writes:—"The disgraceful scenes at the banquet given by the city of Berlin to the Medical Congress were recently the topic of discussion in council. A councilman called it 'the medical Schantzenfest,' and emphasised the waste of money. He was not altogether wrong. The money spent by the city for the Rathaus banquet was really enormous, and the result was the total intoxication of

most of the shining lights of the profession."

This correspondent, whom we assume to be a physician, and, from the high professional standing of the journal in which the letter is published, also to be trustworthy, gives additional details of the great medical drinking-bout in the German capital as follows:—"I regret to say that the bigger the man the more he was inebriated. On a professor whose name is a household word all over the medical world artificial respiration was practised for almost an hour, and another professor who has revolutionised one of the most important of medical branches had a bad cut in his head, the result of a fall. A French physician who has made his name renowned by fighting intemperance through exposure of the injury inflicted upon the organism by alcohol was unable to spell his own name. By a queer coincidence I also saw two men hugging each other who are known as irreconcilable antagonists in science, one a leader of German bacteriologists, and the other a well-known Paris professor who does not believe in bacilli."

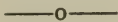
Such disgraceful alcoholic excesses on the part of eminent medical men, it not thus well attested, would seem well-nigh incredible. We may hope that they would not, at least, in the grossness and want of common decency, be equalled at any kindred gathering in this country. Yet we remember that the liquor supply for the late International Medical Congress, held in Washington, as reported in the public journals, was very large.

Great Britain leads the world at the present time in intelligent organised

medical temperance propagandism. The British Medical Temperance Association, with Dr. Benjamin Ward Richardson, of London, as its distinguished president, and with upwards of five hundred abstaining physicians in different parts of the United Kingdom as members, fills a very large place of usefulness. Its organ, the *Medical Temperance Journal*, published quarterly, is a most valuable periodical, which physicians everywhere might read to great advantage. The need in this country of the counterpart among American physicians of the British Medical Temperance Association is most urgent.

The education which medical students receive in our colleges, either concerning the use of alcohol as a curative agent in the treatment of disease, or with reference to its beverage use in the sphere of preventive medicine, is very incomplete and superficial. There ought to be some provision for the supplementary train-

ing of young physicians, especially in this direction. The London Temperance Hospital is demonstrating conclusively the practicability of the successful non-alcoholic treatment of all the diseases common to general hospital practice. But few physicians on this side of the Atlantic know, however, of its important and eminently successful mission. While physicians continue indiscriminate and needless alcoholic prescriptions for their patients, and themselves indulge moderately or immoderately in the use of alcoholic beverages, their influence must needs be greatly harmful among the masses, by whom they are looked to as teachers and guides, especially in matters involving physical health. There is a moral side to the physician's profession, which, with many of its members, needs greatly to be cultivated and emphasised, and especially as related to the popular beverage use of intoxicants.—*National Temperance Advocate*.



## ALCOHOL AND THE PROFESSION OF MEDICINE.

(From the *Lancet*, March 7.)

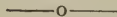
WHATEVER may be said of total abstainers from alcohol, it can never be alleged truthfully against them that their peculiar habit interferes with their industry, their energy, or their perseverance. When an aspiring member of Parliament is about to contest a district, one of the first things he considers is the strength of the teetotal element. If there be many teetotal organisations, he is sure from the first that he must reckon with them; they will have their own ideas, they are likely to combine in many ideas, and perfectly certain it is that, should they set to work, their physical powers will fully compensate for any shortcomings of an argumentative kind. They will be aggressive, patient, vigilant, and of long endurance. Last week there was an illustration of some of these faculties in those abstaining members of the profession of medicine who are the representatives of the

British Medical Temperance Association, a medical body now numbering close upon 500, and, we believe, over-numbering that figure if they who are learning their "rudiments," as Dr. Cophagus called it, may be considered medical. This society, like its fellows, meets ordinarily in its own central rooms in the west end of London, or in the central rooms of its branches in other parts of the kingdom, and there carries on its work of papers and discussions. But now, on the suggestion of its indefatigable honorary secretary, Dr. Ridge, the members of the society, with characteristic pertinacity, are moving into new pastures and holding meetings in different districts in order to invite the busy practitioners of the district visited to meet them in the most convenient way and discuss with them the great argument for and against alcohol. On Wednesday week last, February



25th, the first meeting of this kind was held at Northampton House, St. Paul's Road, Highbury, and for numbers present, as well as for the matter of debate, it must be accepted as a most successful first attempt. Dr. B. W. Richardson, the President of the Association, occupied the chair, and in an opening address led the way simply towards discussion. Every word that was extreme was avoided as unnecessary. The apathy of the profession as compared with the energy of the clergy was first touched upon, and then the sanitary side of the matter was made a special point for consideration. Alcohol produces a certain large and calculable mortality; the mortality means a large bill of sickness, and the sickness means an enormous loss of labour and the rewards of labour. But we, as a profession of health, said the chairman, are the custodians of health, and ought, therefore, specially to concern ourselves in the wholesale removal of the preventable cause of so much disease and misery. If an epidemic from some more obscure cause destroyed a tithe of people so systematically and regularly as alcohol does, we should be ambitious to vie with each other in discovering the mode of reaching and removing the root of the evil. It is our duty to do the same thing in regard to this great plague which is always before our eyes. Another point dwelt on was the recognisable pathology of alcohol, and the lesson it supplies, in respect to the employment of it as a medicinal remedy. Touching this last subject, the speaker repeated his often-stated opinion that alcohol, whenever it is prescribed in disease, should be pre-

scribed as "a weapon of precision"—that is to say, diluted with water in measured doses, without the least complication. This plan, he urged, answers perfectly, and after fifteen years' employment of it he had found it equal to every requirement. Finally, the requirement itself was, he thought, in truth, very much curtailed when all the facts of the necessity were fully disclosed. The masters of physic who recognised the force of the *experientia fallax* were most sound when they exposed that kind of experience, and never more was that soundness verified than in the practice of alcohol administration. Let a practitioner, said the speaker, who has been accustomed to use alcohol once have the courage to look at the other side of the shield, and see what remarkable results follow treatment without it—as, for example, in cases of hæmorrhage, pneumonia, and asthenia, and the rapidity with which the mode of treatment without alcohol would advance would lead to quite a revolution in the practice of using alcohol as a remedial instrument. Dr. Ridge, Dr. Norman Kerr, and Mr. Moir followed on the same side. The most trenchant opponent was Dr. King, who dwelt more particularly on the social influence of alcohol for good when perfect moderation tempered appetite. He was of opinion that wine judiciously taken aided the worker and sustained the enfeebled. Altogether, this new experiment of local discussion on the alcohol topic from its medical aspects, by medical men amongst themselves, was so friendly, hopeful, and instructive, that we trust it will be repeated. It is good for brethren to dwell together in unity.



### ALCOHOL IN TYPHOID FEVER.

THE *Hospital Gazette* has published a series of papers on "Typhoid Fever, its Diagnosis, Prognosis, and Treatment," by Mr. William Bull, F.R.C.S., of Shepherd's Bush, who said:—"It is admitted by all that there is always present the danger of cardiac failure,

and that a cardiac stimulant is necessary. What form shall it take? Is alcohol a stimulant or a narcotic? Candidly, when I have a severe case of typhoid fever to deal with, I am always brought up thus. My own personal feeling is against giving alcohol



all in disease, but I am equally convinced that some stimulant is necessary, and hence I follow the practice I have always been accustomed to, but I try to keep the patient on as small a quantity as possible. For the first half of the attack I never use it; for the last half I am guided by the patient's pulse, cardiac condition, and general appearance, but most of all by the effect produced, and I always make it a point to remain with my patient for at least thirty minutes after the first dose of alcohol has been given. It is extremely difficult to lay down a hard-and-fast rule, for each practitioner may read symptoms in a different way. The effect produced on the heart and brain by alcohol is what guides me most. . . . Up to this I have not attempted directly to answer my question, Is alcohol a stimulant or a narcotic? I confess myself unable to do so; that is placing alcohol and opium side by side, and in contrast. The question was put by me not long since to a well-known and able physician, but he did not, nor has he yet, answered it. I know he will see this article, and I will ask him to do so, in this journal, for there is no one in the profession, to my knowledge, more capable of dealing with the question of alcohol in disease. It is a wide question, and one on which a discussion would be most valuable. The statistics of the Temperance Hospital would be a guide, and I am certain that many younger practitioners would be thankful to their professional leaders for their experience. I should be thankful to any more experienced readers who would take up the question of alcohol in disease, and state the plain and unvarnished facts which they have observed of its action, not alone in typhoid fever, but also in other acute disorders.

"Since writing the above I have received some literature from Dr. Edmunds, the senior physician to the Temperance Hospital, bearing on the question of alcohol in disease, and I will at once say that I know of no more high-minded or honourable member of the profession, nor of one for whose opinion on this or any other

subject I have a greater respect, and I at once accept his axiom that alcohol is a narcotic and not a food. It was put to me from the other point of view by a young physician now gone abroad, who went through some strong physical exertion and fatigue, extending over many days, in which he partook of nothing except diluted whisky and dry bread, and this, he contended, proved that alcohol was a food. Nothing of the sort; during my travels in Mexico and the tropical parts of America, not many months ago, I learned, not only by hearsay, but by practical experience, that coca, either chewed or taken in the form of hydrochlorate of cocaine, will enable one to go through a considerable quantity of fatigue, and at the same time produce a temporary condition in which food is not required, yet no one has advanced the theory that cocaine is a food and not a narcotic. Again, on which can one sustain life longest—bread and milk, or bread and alcohol? I have never treated a case of typhoid without using alcohol, simply because I have always been taught that it was an essential, and perhaps, too, from want of courage for fear of failure. I have not had the advantage, it is true, of having the patient in hospital where I could deal with the case under the more exact and scientific aid of the house-physician; but the more I see of this question of alcohol in disease the more am I convinced that it is not necessary, and that the view adopted by Dr. Edmunds, that 'the so-called stimulant effects of alcohol in small doses were only finer shades of the drunkenness and narcotism which followed the use of it in larger doses.' These views are, of course, only the opinions of an individual; but having the assurance of Dr. Edmunds that typhoid fever, and the so-called typhoid condition, can be dealt with by other means than that of alcoholic stimulation, I shall certainly treat the next case that comes under my care on the non-alcoholic method. At the same time, I would gladly welcome a discussion on the broad and important question of alcohol in disease."

## ALCOHOLIC CIRRHOSIS.

THE *British Medical Journal* published on the 27th of December, 1890, a paper on "The varieties of Hepatic Cirrhosis," by Dr. Robert Saunby, F.R.C.P., Physician to the General Hospital, Birmingham, in which he said:—

Pathological research has established the existence of no fewer than ten varieties of hepatic cirrhosis: 1, Alcoholic; 2, cardiac or cyanotic; 3, biliary; 4, diffuse syphilitic; 5, gummatous syphilitic; 6, tuberculous; 7, malarial; 8, scarlatinal; 9, rachitic; 10, diabetic.

*Alcoholic Cirrhosis.*—This is the common type of hobnail or gin drinker's liver, to which the name cirrhosis was first applied by Laennec. It is caused by the abuse of alcoholic liquors, and occurs generally in adult males. These cases usually present themselves complaining of abdominal dropsy or hæmatemesis, and it is noteworthy that those who have abdominal dropsy usually escape hæmatemesis, and those who have hæmatemesis are generally free from dropsy of the abdomen. This division is, I believe, of considerable importance, as I shall try to show you. In both cases there are various dyspeptic symptoms due to catarrh of the stomach; there is often great flatulence; the skin is of a peculiar earthy tint, or even subicteric, rarely jaundiced. The urine is scanty, loaded with lithates, and high coloured from the presence of an abnormal urinary pigment, the so-called febrile urobilin; albumen in variable quantity may be present. The spleen is usually enlarged, while the liver dulness is notably diminished, especially in the epigastrium; but in the right vertical nipple line the dulness is reduced from four inches and a half to one and a half or two inches. Ascites is present in about two-thirds of the cases, and where it is absent the disease is very likely to be overlooked until a severe, and perhaps fatal, hæmatemesis suggests an examination of the hepatic region. Such cases are overlooked

because they often present no marked disturbance of health. Some years ago, I examined the body of a man employed as a foreman engineer at a colliery, who had died suddenly from hæmatemesis. Although a hard drinker, he was a steady workman, and the books showed that he had not lost a day's work for two years. His liver was a most typical example of hobnail cirrhosis, and he died from the rupture of a varicose œsophageal vein.

The explanation of the absence of ascites is, there can be little doubt, the enlargement of other venous channels by which the blood from the portal system finds its way along the coats of the stomach and œsophagus to the superior vena cava, and I show you specimens of these enormously dilated veins. This adaptation, while preserving the patient from the misery of abdominal dropsy, is attended by the risk of fatal hæmorrhage, should the coats of a vein give way.

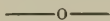
This is not the place to enter into detailed pathological descriptions. I will therefore only say that the liver in alcoholic cirrhosis is usually small, pale olive in colour, granular on the surface, with a thickened capsule, tough on section, its cut surface showing yellow bile-stained areas of hepatic tissue surrounded by greyish translucent bands of newly-formed fibrous material. This new formation grows in the portal canals surrounding groups of acini and invading them from their periphery. It is probable that the hepatic cells themselves take part in this process, and are actually transformed into fibrous tissue (Hamilton). Newly formed biliary canaliculi are also to be seen in the neighbourhood of the acini, running up to and continuous with rows of hepatic cells.

I am able to show you a patient who illustrates the chief points to which I wish to direct attention respecting the prognosis and treatment of this disease.

It is well known that it is an essentially chronic malady, but I do not think

the general opinion of the profession is favourable to a prognosis of prolonged life when ascites is fully developed. Yet this man six years ago was in that condition. He was cured of his ascites by early and repeated tapping, and his condition now is relatively infinitely more satisfactory than could have been expected from any other plan of treatment. I consider that by tapping this man was allowed the opportunity to establish his collateral venous circulation, and is in the condition of those cirrhotic patients, who, I have shown, go on to the termination of their cases without marked symptoms of ill-health. I do not say this can always be done, because many of these patients are hopeless drunkards, and, in spite of all warning, continue to drink and relapse. Not long

ago, in consultation with Mr. J. W. Moore, of Moseley Road, we effected a remarkable improvement in a young man, who was able to return to his ordinary life for about a year, but unfortunately he soon began to drink heavily and died. But the point I wish to emphasise, because it is a ray of hope in an otherwise hopeless condition, is that by early and repeated tapping a patient who will abstain from excessive use of alcohol may have his life prolonged many years. I should not like to conclude this part of my subject without reminding you that it was that great clinician, Dr. Charles Murchison, who first advocated this treatment, and to his writings I owe the practice I have followed with, I believe, great benefit to many patients.



## TUBERCULAR LESIONS IN ALCOHOLISM.

At a meeting of the Hunterian Society, on the 14th January, Dr. Stephen Mackenzie, President, in the chair,

Mr C. J. Symonds read a paper entitled "Three Cases of Hydronephrosis and their Treatment." Case 1 was that of a girl aged seventeen, with a tumour in the right loin. She was aspirated four times within three months, nine pints in all being withdrawn. She remained well, but came three years after with a very large tumour. The kidney was laid open and drained, no calculus was found, but the ureter was greatly dilated. The permanent sinus was a cause of distress, and some months later the kidney was removed. The operation proved very simple, the scar tissue being readily dissected off, and the organ enucleated; recovery was good. In Case 2 a housemaid had a recurring renal tumour, filling and emptying of its own accord. The kidney was incised, no calculus being found; but a dilated pelvis and the orifice of the ureter contracted. The third case was that of a boy aged nine. As regards the treatment of hydronephrosis, spon-

taneous evacuation cures some cases, and may be assisted by posture or manipulation. Aspiration proves curative in a few, but need not be repeated more than three or four times. If the canal is contracted and cannot be dilated, remove the kidney. The existence of a sinus did not in these cases increase the difficulty of performing nephrectomy. The abdominal method of operating offers advantages in some cases; the condition of the other kidney can be ascertained, and a calculus in the ureter detected and removed.

Mr. R. Clement Lucas having made some remarks, Dr. Newton Pitt referred to some specimens, showing how the disposition of vessels along the pelvis of the kidney and the ureter may give rise to a kink in the latter, and thus cause hydronephrosis.

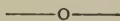
Dr. G. Newton Pitt read some notes on the post-mortem appearances in Chronic Alcoholism. In thirty cases in which phthisis was present, a dense fibroid pigmented change was almost invariably present in some portion of the lung, far more frequently than in other cases of phthisis; gray or yellow



tubercles were less common, and caseous broncho-pneumonia was quite the exception. The prevalence of these fibroids, and to a certain extent reparative changes, appear to be associated with the taking of a large amount of alcohol. *Primâ facie*, the chronic dyspepsia and irregular habits, the lack of food, and the gross improvidence and recklessness of these patients, would lead us to expect that their mortality from phthisis would be high. The Registrar-General's reports, however, show that the mortality from phthisis of publicans and others whose occupations expose them to special temptations to drink is rather below than above the average. But acute tuberculosis and pneumonia are very liable to occur in such patients, and the tubercular nature of the disease may often be overlooked during life. It is noteworthy that about three-fourths

of the cases of alcoholic neuritis, and about a fifth of those of alcoholic cirrhosis of the liver, are found post mortem to have also tubercular lesions. The association of such lesions with cirrhosis is seldom insisted upon, but is of importance. Out of 110 cases of alcoholic cirrhosis, in twenty-three there were tubercular lesions, phthisis most commonly, but in some acute tuberculosis or tubercular peritonitis. Dr. Pitt's conclusions were that tubercular lesions in the lung in alcoholic subjects generally take a fibroid form, and that tubercular lesions are not infrequently associated with alcoholic neuritis and hepatic cirrhosis.

Drs. F. J. Smith, Turner, and Gilbert, and the President, discussed the paper, and referred to cases illustrating and confirming the conclusions arrived at.



## PUBLICANS AND LIFE INSURANCE.

THE following letter from Mr. W. Bingham, a gentleman who has devoted special attention to the subject, has appeared in the public press:—

As a considerable amount of discussion has taken place lately relative to the influence of occupation on longevity, I thought it would be interesting to ascertain how the different life offices dealt with proposals on the lives of publicans, and therefore wrote to seventy of the leading offices, receiving replies from sixty, and below I give the result as gathered from those replies.

The Eagle, Kent, Metropolitan, Patriotic, Positive, Provident Clerks, and Reliance, do not necessarily charge any extra for occupation. The Church of England, Clergy Mutual, General, Lancashire, Law Life, Legal and General, London Assurance, National, Rock, and Scottish Provident, have no fixed rule, each case being judged on its merits, but usually some addition is made.

The National of Ireland charges 5s. per cent. extra; Yorkshire, "speak-

ing generally, an extra charge of about 10s. per cent.; Equitable, "11 per cent. of the premium;" in the Royal, "extra charge is equivalent to an addition of five years to the proposer's age;" Provident, usual extra charged is 30 per cent. on the premiums;" Northern, "rate them for their occupation as if they were seven years older;" Caledonian charges 10s. per cent. extra, and Pelican an extra of 10s. to £1 per cent. according to the circumstances of the case; Gresham, "can only be assured on Endowment Assurance Tables, and at special rates of premiums;" while the following offices each charge £1 per cent. additional:—Alliance, Atlas, City of Glasgow, Commercial Union, Economic, Edinburgh, English and Scottish Law, Equity and Law, Guardian, Imperial, Life Association of Scotland, Marine and General, North British, Norwich Union, Royal Exchange, Scottish Amicable, Scottish Equitable, Scottish Union and National, Standard, Star ("on endowment assurances the directors would not accept them on the

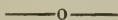


whole life rates"); Union, Victoria, Westminster and General, and Whittington. The London and Lancashire and Prudential each charge 2rs. per cent. additional.

The Hand-in-Hand states that "proposals are not accepted by us in the absence of specially favourable circumstances." The Crown: "My directors decline, owing to the extremely risky nature of publicans' lives, to accept proposals on such lives." The Clerical, Medical and General, Friends' Provident, National

Provident, Sceptre Life Association, Scottish Widows' Fund, and United Kingdom Temperance and General Provident, also all refuse them.

Remembering that the publican is, as a rule, comfortably housed, clothed, and fed, and not usually either overworked or subjected to severe exposure, also that he is favourably situated to protect himself from injurious adulteration, I think the above facts afford strong evidence of the deleterious character of the article he dispenses.



### ERYSIPELAS AND TOTAL ABSTAINERS.

(To the Editors of the *Lancet*.)

SIRS,—I think it may be interesting to note the fact that I have at present under treatment three Guardsmen suffering from very severe attacks of idiopathic erysipelas of face and scalp, contracted from exposure in the recent severe weather, and that in each of these cases the patient is a total abstainer. The men are strong, healthy-looking men, in the prime of life. In one case the patient suffered from pneumonia as recently as last November, but in the other two cases no history of previous ill-health existed. These men came from different regiments, and no insanitary conditions were observed in connection with their cases. Alcohol is often blamed as a predisposing cause to this disease, and no doubt is so when taken in excess; but is the temperate drinker in a better or worse position to resist extremes of temperature than the total abstainer? This occurrence of the disease among total abstainers may be only a coincidence, but it looks a significant fact that the only three cases at present existing in the London garrison (over 3,000 strong, should come from a comparatively small body of men, such as the total abstainers are in comparison with the non-abstainers. Considering the value of alcohol as a heat-producing food, and that the probability that the disease in these instances was caused by extreme cold acting

on tissue whose vitality was lowered, there seems some evidence of cause and effect. From my experience in hot climates I certainly think it is a very open question whether even there the moderate use of alcohol is not beneficial. I am inclined to believe that the stimulating effects of alcohol are most useful in producing digestion and proper nutrition. I would include in the term moderate drinkers only those who do not take more than two ounces of absolute alcohol in the day, and take that either with or just after their meals.

I am, Sirs, faithfully yours,

H. R. WHITEHEAD, F.R.C.S. Eng.

Surgeon, Medical Staff,

Coldstream Guards' Hospital.

26th January, 1891.

(To the Editors of the *Lancet*.)

SIRS,—It would seem almost impossible to believe that Staff-Surgeon Whitehead can have been really serious in inditing the letter on "Erysipelas and Total Abstainers," in your last issue. If ever there was a case of building a pyramid upside down this is one. Because three abstainers happen to have erysipelas at the same time we are asked to conclude that their abstinence must be a predisposing cause, and that it is detrimental both in hot and cold climates, in the face of all the evidence which has been accumulated to the contrary. I would challenge Mr.

Whitehead to extend his observations and give us the result of the comparative sickness of the abstainers and non-abstainers in the London garrison for a period of twelve months, or longer if possible. Such comparisons have been made in other quarters. The days of sickness of the men in the abstaining Friendly Societies (Rechabites and Sons of Temperance) is only from one-half to two-thirds of that of the Odd Fellows and Foresters (although these include many abstainers). Comparing 3,978 abstainers and 8,829 non-abstainers in various regiments in the Indian Army in 1885-86, it was found that the admissions to hospital were more than twice as great among the non-abstainers, the proportion invalided to the hills was 3.82 per cent. of the non-abstainers, and 1.88 per cent. of the abstainers; the proportion invalided to England was 2.93 per cent. of the former, and 0.603 per cent. of the latter; the deaths per 1,000 being 9.5 and 2.7 respectively. The results of the insurance companies prove to demonstration that this greater liability to disease results in a greater mortality among the non-abstainers. Mr. Whitehead speaks of the value of alcohol "as a heat-producing food." Is it possible that he is unaware that its invariable effect is to reduce the temperature, and that practical men in cold climates have found out that the colder it is the more injurious it is to take alcohol in any form? It lowers the vitality and renders the tissues more susceptible to the hurtful effects of cold. The evidence is so overwhelming on this point that it is superfluous to adduce it in detail. I have been able to find some explanation for this in the fact that alcohol, even in minute proportions, depresses the vital action of cell-protoplasm; while, on the other hand, in the same minute quantities, it promotes the multiplication and activity of bacilli. It will be found to reduce the activity of phagocytes and increase that of their antagonists. Its effect in promoting decomposition can be easily proved by putting a few drops of meat-juice, hay infusion, tartrate of ammonia, or anything which feeds bacteria,

into two bottles, one containing water only, the other 1 part of alcohol to 1,000 or even 10,000 of water. The latter will develop swarms of bacteria more thickly and more rapidly than the former. Whether or not this explains the fact of the superior health and longevity of abstainers (on the average, other things being the same) matters not; the facts remain, and "winna ding."

I am, Sirs, yours truly,  
J. J. RIDGE, M.D.,  
Hon. Sec. Brit. Medical  
Temperance Association.

Enfield, February 16th, 1891.

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(To the Editors of the *Lancet*).

SIRS,—My absence from England has prevented my taking notice before now of Dr. Ridge's letter in your issue of the 21st ult. He seems to have "run amuck" on the subject of alcohol generally. I do not see the point of his letter, and did not advocate the immoderate use of alcohol. I am quite aware that alcohol in large doses, especially in the high temperature produced by disease, lowers the temperature of the body, but unaware that small doses of alcohol, well diluted, in health do so; in fact, the evidence goes to prove the contrary. The statistics he quotes on the rate of invaliding in India do not, I imagine, separate the moderate from the immoderate drinkers, and, if not, are worthless as far as the present question goes. Reference to any of the standard works on the subject will probably tell him why alcohol in small doses is classed as a heat-producing agent. Dr. Parkes, who experimented largely on the subject of alcohol, found that a man in health could take about 2 ozs. of pure alcohol daily without any deleterious effect, and the question I asked was whether, under certain conditions, it was not beneficial. I should recommend Dr. Ridge, instead of instituting fresh experiments, to study what is already known on the subject; his knowledge on this particular point seems to require, to say the least of it, revision. I regret that my absence abroad will for the

present prevent my continuing this discussion, which promises to be both amusing and instructive.

I am, Sirs, yours faithfully,  
H. R. WHITEHEAD.

Montreux, March 3, 1891.

(To the Editors of the *Lancet*.)

SIRS,—I should be sorry if any of your readers should, by my silence, imagine that I admit the truth of Mr. Whitehead's Parthian shot. I can afford to be amused at his reference to my supposed want of knowledge on the subject of alcohol. Mr. Whitehead is mistaken as to Dr. Parkes's dictum with regard to the quantity of alcohol which an adult man might possibly take. It was the late Dr. Anstie who, at one time, put the limit at 2 ozs. (not about 2 ozs. Mr. Whitehead!). Dr. Parkes put the limit as between 1 and  $1\frac{1}{2}$  ozs. in the twenty-four hours, the maximum amount for a powerful man accustomed to the use of alcohol. And what he said about this was that this amount was not followed by any immediate and obvious deleterious effects. I think it can be shown that Dr. Parkes was mistaken on this point; but, even if not, it by no means follows that such a dose could be taken day after day, month after month, and year after year, with similar freedom from obviously bad consequences. As a matter of fact, the returns of some insurance companies show that in the long run these constantly-repeated small doses of alcohol cause earlier average death by five or six years than would otherwise have been the case. But more accurate tests than Dr. Parkes applied have shown that all the senses are

rendered less acute than before by moderate doses of alcohol, and the perception, discrimination, and decision are all rendered slower. As Dr. Lauder Brunton has said, it produces progressive paralysis of the judgment, and, I may add, of the will likewise. Mr. Whitehead says he is unaware that alcohol in small doses, well diluted, lowers the temperature in health, and says there is evidence to the contrary. Some observers have noted a very small temporary rise of half a degree or so, followed by a fall; others deny any alteration, especially in those accustomed to it. I have noted in myself, an abstainer, a fall of from half to one degree Fahrenheit some time after taking two drachms of alcohol well diluted. It is an experiment which anyone can make, taking ordinary care to avoid fallacies. These and many other considerations show that alcohol lowers vital action, though it may apparently stimulate indirectly by relaxation of blood-vessels. We come back to the point that in such a condition the body is less fortified against the attacks of erysipelas or any other disease. The returns of the London Grand Division of the Sons of Temperance for 1890, notwithstanding the influenza epidemic, show an average sickness of seven days per member. The most temperate users of alcohol cannot beat that. I trust that Mr. Whitehead will further investigate the subject, and see what the standard works on alcohol really say.

Yours truly,

J. J. RIDGE,  
Hon. Sec. Brit. Med. Temp. Asso.  
Enfield, March 16, 1891.

## AVOIDANCE OF STIMULANTS DURING HÆMORRHAGE.

By Dr. B. W. RICHARDSON, F.R.S.

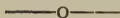
It is customary when the accident of hæmorrhage occurs for the operator, or some bystander, to administer wine, brandy, or some other alcoholic stimulant to the patient, under the false idea of sustaining the vital power. It is my solemn duty to protest against

this practice on the strictest and purest scientific grounds. The action of alcohol, under such circumstances, is injurious all round. It excites the patient, and renders him or her nervous and restless. It relaxes the arteries, and favours the escape of blood through



the divided structures. Entering the circulation in a diluted state, it acts after the manner of a salt in destroying the coagulating quality of the blood; and, above all other mischiefs, it increases the action of the heart, stimulating it to throw out more blood through the divided vessels. These are all serious mischiefs, but the last-named is the worst. In hæmorrhage the very keystone of success lies so much in quietness of the circulation that actual failure of the heart, up to faintness, is an advantage, for it brings the blood at the bleeding point to a standstill, enables it to clot firmly, when it has that tendency, and forms the most effective possible check upon the flow from the vessels. In a case where I had to remove a hard palate, that had become carious, in order to reach and twist a bleeding vessel, although the quantity of blood lost during the hæmorrhage amounted to over three pounds in the weight, and the syncope was so extreme the patient did not know anything had been done to him after he returned to consciousness, not a drop of stimulant was administered at any stage, and the care to avoid such administra-

tion was carefully sustained after recovery, in order that the rapid action of the heart might not overcome the resistance of the tenderly sealed up vessel. I am certain that this rule of avoiding stimulation was far more effective in saving my patient's life than any surgical skill of mine, for the vessel I twisted might have become plugged up, naturally, during the syncope; but nothing would have prevented the bleeding from breaking out afresh if the heart, instead of being allowed to swing round of itself, slowly and safely, had been whipped for a brief period into violent action. I refer to this case as typical, because if a stimulant were not wanted in it, a stimulant cannot be called for in examples less severe. The course followed was simply to lay the patient quite recumbent when signs of faintness supervened, and, so long as he could swallow, to feed him with warm milk and water freely. Such, in my opinion, is the proper treatment to be employed in every instance of syncope from loss of blood.—*The Asclepiad*, 1st Quarter, 1891. (Longmans, Green and Co.). 2s. 6d.



### LONDON TEMPERANCE HOSPITAL.

THE annual meeting in connection with the London Temperance Hospital, which has for its object the treatment of medical and surgical cases without the ordinary administration of alcohol, took place at Hampstead on Thursday evening, 12th March, in the board room of the institution. The chair was occupied by Mr. Joseph Howard, M.P., who was supported by Mr. W. Johnston, M.P., Mr. R. G. Webster, M.P., Mr. T. Cash, Dr. F. R. Lees, the Rev. Dr. Dawson Burns (hon. sec.), Mr. E. Wilson Taylor (sec.), &c.

The annual report explained that, as the accounts are now made up to the close of the financial year, the present report covered a period of only nine months. We give the following extracts:—

"The in-patients admitted during 1890 were 753, of whom 390 were cured, 258 were relieved, 60 were unrelieved, and 45 died, a mortality of not quite 6 per cent. (5'93). From the opening of the hospital to the end of last December, the in-patients were 6,896, of whom 3,591 were cured, and 428 died, a mortality of 6'2 per cent. In the out-patients' department, the new cases in 1890 were 3,282, raising the total cases to 36,284, it being always remembered that this aggregate refers only to new cases in each year, the same persons having often been seen several times and provided with necessary medicine. In the casualty department the cases were 1,752, as compared with 1,711, in 1889."

From the "General Statistical



Summary" we learn that, of the in-patients admitted since the opening of the hospital, 3,628 were abstainers and 3,268 non-abstainers. During last year 82 of the in-patients came from the country, and 671 from metropolitan districts; the abstainers being 425, and the non-abstainers 328. Of the out-patients 2,064 were abstainers, and 987 non-abstainers, 231 being unclassified. Dr. Collins gives special reports of two exceptional cases for which alcohol was prescribed, and both patients died.

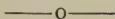
The accounts show that the total expenditure for nine months had been £4,415, and that it had been necessary to transfer £1,300 from the endowment fund, of which there is still a balance in hand amounting to £6,540.

The CHAIRMAN, in commending the institution to the support of the public, spoke in very appreciative terms of the excellent work it had accomplished in the past, and said that it had se-

cured for medical science a vast number of interesting and important results.

Mr. W. JOHNSTON, M.P., then moved, and Mr. WEBSTER, M.P., seconded, a resolution:—"That this meeting, rejoicing in the operations and results of the London Temperance Hospital during the seventeen years of its existence, appeals to the chair-table of all classes to render a largely increased measure of pecuniary support, so that the Board of Management may be enabled to provide for the admission of a greater number of patients, and thus extend the medical and moral benefits which the institution is adapted to confer."

The resolution was unanimously adopted, and addresses were given by Dr. F. R. Lees, and by the visiting medical staff, Drs. James Edmunds, J. J. Ridge, and W. J. Collins, who were thanked for their services.



## TEMPERANCE PHYSIOLOGY.

By DR. D. H. MANN.

SOCIAL drinking is the forerunner of an artificial, dangerous, and almost ungovernable appetite, leading to drunkenness, and often to ruin, death, and hell. Beware of the social glass. One medical writer says the disease occasioned by strong drink "has been by far more destructive than any other plague that ever reigned in Christendom; more malignant than any other epidemic pestilence that ever desolated our suffering race, whether in the shape of the burning typhus, the loathsome small-pox, the cholera of the East, or the yellow fever of the West; a disease more loathsome and destructive than all of them put together."

Were the viscera of the human body transparent and put up in a glass case, instead of an opaque body, we could readily see, without inquiry, why alcohol is such a deadly foe to human health and life. We should see in the drinker the beautiful surface of the inner membrane of the stomach gradually changing from its soft, pinkish-yellow colour, to a blushing crimson.

We should see springing into view myriads of little distended blood-vessels where we at first saw none, because they were too minute to be distinguished with the naked eye. We should see the fine, beautiful nerves, become loaded with little bulbs or nodules, as if tied into knots. We should see the heart labouring with increased action to hurry along the intruder alcohol that it might be pitched out of door. We should see little bundles of diseased fatty deposits appearing all along many of the different organs. We should see the brain irritated and reddened, and its little minute blood-vessels also distended. We should see the lungs, the liver, the kidneys, the spleen, gradually taking on disease, all from the poisoning influence of the deadly guest invited into this house of perfection by the drinker.

We should see all these dreaded changes taking place in the temperate drinker as well as in the confirmed drunkard, and thus we should realise

why so many are dethroned of reason, why so many die prematurely, and why we should do all in our power to eradicate the evil.

The occasional or moderate drinker of to-day is surely producing a physiological change in his system that will, unless checked in time, become an unconquerable foe, stealing upon him so gradually that he, like the victim in the story of the Laocoon, will find himself embraced in the deadly coils before he is aware of his danger.

It irritates, the stomach, the nerves, the brain, increases the action of the heart, quickening most unduly the circulation of the blood, at first producing

a pleasurable and exhilarating effect, but constantly undermining his nervous energy, until, by and bye, he will fall an easy prey to disease.

The arousing of nature's energies beyond a healthy action mistaken by the drinker for increased strength, is simply opening the vestibule door to future misery and punishment. The alcohol he thinks he is using in such moderation will teach him a bitter lesson in the future unless he banish it *in toto*, and he will find it a wily intruder and deadly trespasser upon the beautiful structure God has given him in His own image, and called it man.

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### ALCOHOL AND THE MORAL CHARACTER.

IN a letter to the *Medical Press and Circular* (March 18), Dr. Robert Morton, of Nenagh, says:—Alcohol is described as a stimulant capable of exciting the vascular and nervous systems, and by some as a substance that generates nerve energy. It certainly causes increased heart's action, and, if that action depended on propelling nerve energy alone, it would be fair to conclude that alcohol increased nerve energy; but we must take into account inhibitory nerve energy, too. We have the heart acting under the influence of two opposing nerve energies, one propelling and one restraining, just as our earth speeds along its orbit with gravity and centrifugal force in opposition. It is therefore evident that the heart's action may be increased either by additional propelling force or weakened restraint or inhibition. It is manifest, from the relaxed arteries and flushed capillaries, that alcohol weakens the vaso-motor restraint that controls them, and as this is the same innervation that governs the heart itself and completes the compensation of blood pressure, it follows that the increased heart's action caused by alcohol is not the result of additional nerve energy, but is the result of weakened inhibitory nerve force.

This alcoholic disturbance of nerve equilibrium by its consequent increased arterial circulation from faster

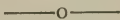
action and relaxed arterioles, gives a feeling of exhilaration and warmth which we recognise as the effect of a stimulant, the point of importance being, that the first step in the disturbance is a paralysing one. I am aware that so far I am stating what your readers know, but, for my analogy, it is necessary.

As everything is dual, so we find that man's character is composed of two opposing principles. In everyone there is an inclination to do what we call wrong, call it old Adam or original sin if you wish, and in every one there is an inclination to do good, call it conscience, prudence or caution if you wish, it will represent our moral inhibitory principle in this analogy. What we call character is, then, the established equilibrium of these two principles, partly a birthright, and partly the result of education, surroundings, and the strengthening of either principle by indulgence or exercise. Without wishing to elaborate these ideas any farther, does it not seem rational from experience to infer that just as alcohol disturbs the balance between the moral principles, in the great majority of cases weakening inhibitory moral principle and giving loose rein to our evil inclinations. A moderate dose may have no appreciable effect, but anything exceeding that or an accumulation of small doses makes the disturbance

evident in the altered conduct of the man.

Not in all cases does it weaken the good or restraining influence. Just as in some cases it causes paleness instead of flushing, so here sometimes

it weakens the evil principle and allows the good to be predominant, but if it does so, who cares to see generosity that will be repented of, affection caricatured or religion repulsive?

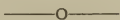


## EDINBURGH HOME FOR INEBRIATES.

### QUEENSBERRY HOUSE AND QUEENSBERRY LODGE.

THE annual report of these institutions has just been published. One side of the work done by them is of interest to the profession, and is not generally known. Both institutions are under the same management, but occupy separate buildings, and the grounds of each are also strictly separated. They are both in part hospitals or homes for aged or infirm persons, or persons suffering from chronic diseases; but the side to which reference is made here is the function they perform as homes or retreats for intemperate persons of both sexes. Queensberry House was instituted in 1832, and is commonly known in Edinburgh as the House of Refuge. During the past year the report states that 138 persons of intemperate habits have been boarded in the institution by their friends for the purpose of protection and reformation. The directors point out that the importance and value of this department are witnessed to by the number of respectable tradesmen and

others who have availed themselves of, and expressed their thankfulness for, the existence of such a place of protection. The rates of board are from 4s. 6d. to 10s. per week. Queensberry Lodge, on the other hand, is a newer institution, having been opened in 1866. It is entirely for ladies whose friends are able to pay from £50 to £100 per annum, and there is accommodation for about thirty ladies at a time. Between 1866 and 1890 661 ladies have been admitted as boarders, and of these there belonged to England 118, Ireland 63, and Scotland 480. The directors say that "the results of treatment, when time has been afforded by a sufficient length of residence, continue to be satisfactory. Information cannot in all cases be obtained as to the benefits derived, but good accounts have been received in regard to a large number of the boarders, particularly those who have resided in the house for a period of four months or longer."—*Lancet*.



## SOCIETY FOR THE STUDY OF INEBRIETY.

A QUARTERLY meeting of the Society was held on the 6th January in the rooms of the Medical Society of London; the president, Dr. Norman Kerr, in the chair.

The PRESIDENT referred to the serious loss which the society had experienced in the death of their associate, Mr. Swinford Francis, solicitor. Mr. Francis had been of their number from their foundation, and had always evinced a deep and warm interest in

the study and cure of the disease of inebriety. He proposed that the sincere condolences of the society should be conveyed to the family.

Dr. A. J. H. CRESPI delivered an address on "Inebriety and its Treatment," in which he said: You may put an inebriate in a home and when all is done you have practically no control. Any relative should have the power of going before a Bench of Magistrates, and compelling his attend-

ance before them by summons. Inebriate houses should be placed on the same footing as lunatic asylums, and should be under the supervision of the Government or County Council. A patient as long as in a home should be deprived of liberty but allowed the management of property; magistrates to convict for three months at a time. This should be done in the first place for the protection of the family. People in the upper walks of life often have inebriate habits, go to race-courses, and gamble; money lost in this way is often made up by relatives. I know now a barrister, recently drinking to excess, who was kept purposely short of money. He would do this: go to a West End tailor, give an order for £50 worth of clothes, and then when they came home sell the lot for fifty shillings. His father had £200 worth of bills in a single week, and, rather than that his son should be proceeded against for obtaining goods under false pretences, he paid over £2,000. Now if the father or mother could get a summons, protection might be afforded *them* from their drunken relative.

"The Psychology and Responsibility of Drunkenness." Dr. T. L. Wright, Bellefontaine, Ohio, in an elaborate paper, discussed the nature and relations of alcoholic intoxication. 1. If insanity was mental aberration consequent on a cause beyond volitional control, then one drunk on alcohol is, during the drunken fit, truly insane. The laws claim that the drunkard is a voluntary madman. This is incorrect. The inebriate does not voluntarily renounce control. On the contrary, he believes he can control his actions, while he cannot. Though he does not know it, alcohol paralyses inhibition. 2. Alcohol assails every element of human character, every organ and portion of human structure. Alcohol acts as an anæsthetic, and the various alterations in the eye, the features, the gait, and the flow of ideas and talk, are not symptoms of increased, but of decreased, intelligence and control. The perception and the senses are clouded. There are distorted and debased sensations. The insane have similar per-

versions. 3. In drunkenness, there are also instability of movement, and inco-ordination of function, leading to mental confusion, maniacal tumult and incoherence of thought. The unity of purpose is destroyed. In most cases of crime under alcohol there has been no criminal intent.

The PRESIDENT called attention to the excellent tone of the address by Dr. Crespi and the paper by Dr. Wright. Both were eminently suggestive, and both emphatically declared that there was a disease element in the causation of excessive narcotic indulgence which must be recognised and treated if intemperance were to be successfully dealt with.

Dr. LORD had been much gratified by Dr. Crespi's address, which had taught him a new truth. The physical aspect of intoxication called for complete recognition by the medical profession, by the legislature, and by all temperance reformers. Medical men, too, should be very careful in administering alcoholic drinks, lest, unintentionally, they light up a sleeping tendency to drunkenness.

Mr. J. H. RAPER dwelt on the terrible and positively appalling extent of the evil wrought by drinking habits, and urged the importance of prevention as well as cure.

Dr. CRESPI replied, and on the motion of the president, seconded by Mr. Smith, a cordial vote of thanks was awarded to Drs. Crespi and Wright.

ETHER DRINKING.—The President reported that in reply to representations made by him in name of the Society, calling attention to the prevalence of ether intoxication in the North of Ireland, and to the facts presented by Mr. Ernest Hart, communications had been received from the Chancellor of the Exchequer and the President of the Board of Inland Revenue, to the effect that the Government had been investigating the matter, and had given instructions for the scheduling of ether as a poison, thereby prohibiting its sale except by chemists licensed to retail such articles.



# British Medical Temperance Association.

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*President.*

Dr. B. W. RICHARDSON, F.R.S.

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## CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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## ENGLISH BRANCH.

*Honorary Secretary.*

Dr. J. J. RIDGE, Enfield, Middlesex.

## NEW MEMBERS.

Dr. HOWELLS, Talgarth, Breconshire. | Dr. KIRTON, Walthamstow.

## NEW ASSOCIATE.

F. B. RUTTER, Esq., London Hospital.

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## IRISH BRANCH.

Dr. BRADLEY, Drogheda.

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## NOTICE.

Members are respectfully requested to forward their annual subscriptions for the year about to close.

J. J. RIDGE, M.D., *Honorary Secretary.*

*Carlton House, Enfield, Middlesex,  
March, 1891.*

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## SPECIAL MEETING IN NORTH LONDON.

UNDER the auspices of this Association a conference of medical men on the effects of alcohol was held at Northampton House, St. Paul's Road, Highbury, on Wednesday evening, 25th February. Dr. B. W. Richardson, presided.

The CHAIRMAN said: Gentlemen, I look upon it as a very great privilege to be able to speak a few words to-day to a meeting here, and I am very glad that Dr. Ridge's happy suggestion, that we should now and then move from our own quarters in order to meet with

our brethren, has met with such an amount of success. I was not at all sanguine we should achieve the success which has been achieved by the presence of so many gentlemen. This question, the administration of alcohol both in health and disease, is the most important that we can be engaged upon as medical men. The public are looking to us at this moment as guides for themselves. They see a great evil, and perhaps they—that part of the public which takes a deep interest in total abstinence—may exaggerate that evil; but the conclusion that is arrived at by the people is that the medical profession is not exerting itself enough and is not guiding the people as it ought. The clergy are very active in this matter. They have found that it is one of the positive parts of their existence that they should work in the temperance movement. Now, while the clergy form a very large and important body, we are considered by the people to be more important witnesses than the clergy on this subject, and the people wonder why we do not take part in it more actively than we do. It is true a few of us have gone out of the lines, as it were, of medicine, to speak on temperance, but we have been considered rather as peculiar for doing this than as men representing medicine. We want to see that all the profession of medicine is going with us, at least in inquiry. When we look at the facts, it really does become a serious social question for medical reformers. We cannot take the deaths from alcohol in this country at less than 40,000 to 50,000 a year. What that means in days of sickness, what that means in loss of labour, is something beyond our comprehension. If we take it there are thirty-nine cases of sickness, for instance, to every case of death that occurs from this form of disease, see what an enormous quantity of sickness that means; and if we take eighteen days for each of these cases as the loss of time all through the year, and the labour that springs from the use of that time we see what a terrific loss it is. If an epidemic were carrying away from 40,000 to 50,000 persons a year we should use all our en-

deavours to stay it, but here is a disease carrying off more people than any one of the epidemics; in fact, all the epidemics put together would only make a little more than twice the numbers I have named. On these public grounds, therefore, I feel that we as medical men are bound absolutely to consider this question in the most serious manner, and to take action in the matter, and move among the people, and show that we are the guides of the people, and the natural guides in a matter which so largely concerns the health of the people. Another side we have to look at is to see for ourselves whether this instrument of death—and we know it is an instrument of death in many cases—is an instrument of use in disease. I was brought up entirely in the school that taught that alcohol was the sheet anchor in a number of diseases. I remember perfectly well how, in the hospital wards, whisky with its allies was a common remedy. We did not recognise any discretion in regard to the use of alcohol. All through it was the use of some alcoholic drink or fluid for the sick when they were sinking, and in different conditions of disease where it was thought strength or warmth had to be conveyed. We were brought up in that school and very naturally we clung to it, and I myself was only led away from it by physiological research. Now, we are quite aware that there is nothing which gives muscular strength in alcohol, and when we are driven a little further and hear it argued that if there is nothing added for strength, yet there is the combustion which goes on in the body from alcohol, and that produces warmth, we know, also, that that is not strictly true. We find that after a slight febrile state from alcohol, which is not due to combustion, there is a fall of temperature. Therefore, what we thought originally was the very foundation of the use of alcohol has passed away. Since that we have learned very much with regard to the pathological action of alcohol. We have got a fixed pathology, and in the Pathological Society the other day they came to the conclusion that

alcohol poisoned like lead in a certain number of cases. There are an infinite number more forms of disease produced by alcohol—diseases affecting kidney, liver, heart, and brain. We come to the point, then, whether the use of alcohol in treatment is sometimes essential, and that was a great embarrassment to me when I became an abstainer. I was absolutely nervous and over-anxious on this point. I had gathered up the physiological facts very well, I had got a good inkling of pathological facts, I had myself ceased to take alcohol, and then came this point of practice—whether where I had been accustomed to give it I should continue. I made tests of the different wines and liquors and beers, and I made analyses of the different drinks sold, and I found them so variable in regard to the quantity and quality of alcohol present that I very soon came to the conclusion there was no reliance to be put upon anything that is sold from the public-house. So I said to myself, “Henceforth, when I prescribe alcohol, it shall be alcohol, and nothing else,” and from that date to this I have carried out that plan systematically. I have prescribed alcohol, but always in the form of prescription, and as a weapon of precision, and I think that should be the first great change for all practitioners who are in doubt. At first I was very much afraid not to prescribe alcohol in certain cases. We go on prescribing and prescribing, and saying in this case we must give this thing, and in that case we must give that thing, until at last we never think of treating a case without it when all along we may be wrong, because we do not know what would have occurred if we had not done what we were wont to do. That was my case. I was astounded to see the good results that followed treatment without alcohol. Take cases of hæmorrhage. There we were taught to give alcohol, but when we know that alcohol relaxes the muscular fibre, and that the flush on the cheek which occurs is really due to a want of power, we begin to see that in hæmorrhage it is not very reasonable we should give

alcohol. The ruptured vessel requires but the least pressure to make it give way, and if we whip on the circulation after the hæmorrhage has ceased, we are only likely to bring it on again. I have been often called by dentists to cases of hæmorrhage in their practice, and I have never for the last fifteen years given a drop of alcohol in these cases. I name hæmorrhage because medical men are most afraid of leaving off alcohol in hæmorrhage. They feel from long-continued practice in doing so just what I felt myself. I gave it up because it is physiologically wrong, and practice sustains me again in cases of pneumonia. Since Dr. Todd’s time how common it has been to think that pneumonia and congestion of the lungs cannot be treated without intoxicants; but these are just the condition of lung we can produce by alcohol in the inferior animal, and in this class of case I give no stimulant whatever. I do not know that there could be a worse form of treatment. Lastly, as regards feebleness and coldness of the circulation, in which brandy and stimulants of other kinds are prescribed, I see always the evil of the plan after the effects are over. The result is an increased feebleness, an increased coldness. There are an immense number of other points, but I have dwelt particularly upon these three as being types of cases in which years ago we always thought alcohol was the sheet anchor. I say now abstinence from alcohol is the best possible course that can be pursued. I think there is a use for alcohol, but not the use that is generally thought of. Alcohol is an anti-spasmodic, and we may say it is an anti-septic, but it is particularly an anti-spasmodic; in that its chief value lies, and I could say a great deal on this subject; but I stay in order to listen to a debate, from which I shall learn with the greatest care everything that may fall.

Dr. RIDGE: Mr. Chairman and gentlemen, before any more is said, perhaps you will allow me to say something about the Association which has called this meeting together to listen to the interesting address which we

have heard from our president. He always gives us food for thought. What he has said I have no doubt will linger in your minds, and I do not wish to remove any of these impressions, but at the same time I wish you clearly to understand that the Association does not enforce any rule upon its members with regard to the administration of alcohol in disease. Members are perfectly free to administer just as much alcohol after joining the Association as they have done before if they think that is the right and proper course to pursue. Our Association is really an association of practical total abstainers, who believe that healthy individuals (and we believe the majority of mankind is healthy and able to work) can exist and do everything necessary without alcohol, and that it would be a great benefit to this country and to ourselves if alcohol were confined to the chemist's shop, and only used as a drug, and as any other drug. Take, for instance, the matter of opium. When the necessity arises we use opium, and when the necessity ceases we leave it off. If we find any patient of ours taking to the voluntarily use of opium, we should very strongly point out the danger which that patient was running, and urge him to leave it off. We consider alcohol is on a similar footing with opium, and some other narcotic drinks; and while opium may in England do some amount of harm, yet the great curse of this country is the use of the narcotic alcohol, which, as you have heard from our president, is slaying its tens of thousands every year. That estimate does not rest upon total abstinence theory, the causation has been traced by societies as well as by individuals, and there can be very little doubt about it. That means that a large number of other people are more or less injured by alcohol. A large number of people succumb to other diseases who would have recovered from those diseases had they been of more temperate habits. It is a difficult thing to draw the line and say what is a moderate quantity; and you will find people saying that they only take as much as will do them good, when

everybody but themselves knows them to be taking a great deal too much. It is a fact that all these narcotics have that tendency, and it makes us feel that the right and safe and true course for us to advise the public is to abstain from the self-administration of all narcotics, and if that is done we can obtain it as a drug and examine its effects, and prescribe it without fear. But I think the right use of alcohol is to prescribe it as we should opium. Our Association has been in existence now for nearly fifteen years, and we have at the present time about 420 members scattered all over the kingdom, besides about 130 associates. We are increasing, I am glad to say, year by year, and a large number of medical men to my knowledge are abstainers who are not members of our society. It would be a great encouragement to us if these numbers could be doubled. It is a great benefit to the temperance movement to have the knowledge of so many medical men in our society. The only other point is the danger that there is in administering alcohol, and especially in recommending the well-known forms of the drink and giving it to reclaimed drunkards—persons who are or have been in times gone by addicted to drink. It is a well-known fact that such people are peculiarly circumstanced, and that a very small quantity recommended to them will frequently plunge them again into those depths from which they had escaped. Medical men can hardly realise the responsibility which rests upon them in giving such advice, as it may be the means of ruin to some who may have been reclaimed, and bring misery into many a home. If that were the only reason I should say one ought to be specially cautious, and so fight shy of administering such things rather than risk being the means of producing such a catastrophe. I am sorry to say many abstainers are led away from that which is the best course for them to adopt by such advice. I was speaking to a young woman at the hospital who was complaining of debility, and it turned out she was taking stout. I asked her how long she had been taking it, and



ne said only since her baby had been born. The numbers of good abstainers who have been spoiled in that particular way are past comprehension. The temperance movement now would be in a far better position if all the persons who had once joined still continued to belong to it—persons who have by medical men been advised to give it up. It is a serious responsibility on the part of the medical profession, and I think we ought to try and undo this evil as much as we can. I feel, while the profession incurs this certain amount of obloquy on account of such advice, it is the part of those who see the evil, to be more and more strenuous in their efforts to support the great temperance movement. The prevalence of evil which we know to be due to drink would certainly be got rid of. I think our country will owe a deep debt of gratitude if we can bravely and boldly give our advice and say it is advisable that men, women, and children should abstain from the self-administration of all narcotics.

Dr. GREY GLOVER: Mr. Chairman and gentlemen, I came here really for instruction, and to hear what you and the other gentlemen who have identified yourselves especially with this alcoholic question have to say. I would like to offer my personal testimony to the obligation of the public and the profession for the way in which you have illustrated this subject. You have set yourselves against a great tide which has been gathering force for nineteen or twenty centuries, and which is deep in the habits of the people, and against a tide of almost equal force in the profession, and, with great moderation and with great courtesy to the majority that differs from you, you have said what you think upon this tremendous matter. I am not a teetotaler myself, but the more I practice the more I am convinced of the power for evil of alcohol, and of the fact that we can do without it to a very great extent in medical practice. I am convinced it is recklessly prescribed very often in cases where people have been habitual abstainers, and I think the responsibility resting on medical men is very great. The

best nurses have been teetotal women, but the belief in alcohol, and particularly in porter and stout, as a milk-producing thing is one of the most erroneous beliefs I can imagine. I believe that the times, on the whole, are changing, though it is distressing to notice that, in this last year, we have gone up seven millions in the consumption of drink, without rhyme or reason, for it is undoubtedly a fact that the medical profession itself is taking much less than it used. An eminent consultant once said to me, "I have come to this conclusion, that a man who works hard must eat little and drink nothing." With regard to the three classes of disease you, sir, have mentioned, and that you recommend the alcohol to be taken as medicine, I am not going to debate that proposition, but I would just wish to view it in the light of this fact—that of late years the general drift of professional opinion, of men who feel the responsibility of this prescription at any rate, is to advise men to take what they do take with their food. I always say, "Whatever you take, take it with your meals." I hold if you could once get men to abstain from entering the public-house, from drinking at odd times and on empty stomachs, you would strike a death-blow at intemperance. Many men of the highest intelligence will tell you they require a certain amount of alcohol, and when I meet a man with this conviction I say, "Take it with your food." Well, sir, your prescription places the alcohol into an empty stomach. The more we can aim at the drinking between meals, and get people to take what alcohol they do take with food, the more chance we stand of making men temperate. I think the society you represent has done great good, and will do more if it continues these meetings in outlying districts of London.

Dr. KING said he was not a total abstainer, but he did not ever remember in his life being anything approaching intoxicated. For forty years he had been a continuous supporter of the temperance question by being a customer of Messrs. Ind, Coope & Co. for

light dinner-ale, and he could say he had suffered nothing from the consumption of that fluid. He did not drink stimulants, but he did enjoy that light ale, and thought he was better for taking it. If he was to discuss the matter from a philanthropic standpoint, he did not think the organisation for attacking the public-house system was nearly strong enough. They would never do anything without good strong legislation on the subject. But what about the social question? There were thousands of temperate persons who were consuming every day good wines, and he considered the social question was a very important one. Port wine socially was of great value, and he did not see that he should treat it different from any other of God's gifts—enjoy it in a moderate way. He did not see why he should not enjoy a little liquor because other people took too much. He would not touch on the medical question, because he thought every medical man of intelligence would know what he was about with alcohol.

Dr. MOIR, who said he had been practising for many years at the Victoria Docks, disagreed with Dr. King on the social question. His experience during the last few years had shown him there was a marked improvement amongst the teeming masses of the East end of London, largely due to the example set them by men who had risen from their own station and who were total abstainers. Dr. King and Dr. Glover had told them what would happen if people did certain things in a certain manner, but they knew they did not do these things, and their environment was such that, unless they gave up drinking altogether, there was no hope of salvation for them. He thought that medical men them-

selves ought to set a good example in this matter. The profession admitted that alcohol was not required in health as a beverage, and, therefore, if they would give the people a little more practice and a little less precept it would be well for the people and for those who did not hold such an eminent position in the profession.

Dr. NORMAN KERR said they had come here to lay the matter before those of their professional brethren who had not made up their minds, but who would like to make up their minds one way or the other. It seemed to him there was a great responsibility upon the profession, and they were bound at this time of day to make up their minds. They had got to deal with a poison which was a very insidious poison, and which affected all mankind, whatever their condition, to some extent.

Dr. WYNN WESTCOTT stated that one-fifth of all the inquests held by him were on cases in which death was more or less due to drink.

The CHAIRMAN, in replying, said Dr. Glover was evidently three parts with them, but were he entirely with them his influence would be extremely great. There was only one point which required to be referred to, that was taking alcohol at meals. He (the Chairman) did not see the least difficulty, if necessity arose, in giving alcohol under those circumstances. When patients came to him, and told him they could not digest their food without alcohol, he replied that that was just the reason why they should not take it. Dr. King had referred to the social question, but what a large circle Dr. King could influence if he were an abstainer. He was sure it was the duty of every medical man to join the movement.

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SALE OF NARCOTICS IN AMERICA.—At a meeting of the American Association for the Cure of Inebriety held at New York on February 28th, Dr. J. B. Mattison proposed resolutions to the effect that it should be made illegal for retail druggists to sell morphine, chloral, or cocaine, except in a medical prescription, or to make up such a prescription again, except on the written order of a physician. The resolutions were unanimously adopted, and a committee, consisting of Drs. Mattison, Crothers, and Wright, was appointed to promote legislation in the direction indicated.—*British Medical Journal*.

## Notes and Extracts.

AN ASYLUM FOR FEMALE INEBRIATES has just been opened at Bonn. The patients are divided into three classes, the payments being respectively from 3 to 5 marks,  $1\frac{1}{2}$  marks, and 60 pfennigs a day.—*British Medical Journal*.

DISPENSARY PATIENTS.—At the last meeting of the Liverpool Medical Mission, Dr. Bond stated that during seven months of last year, through which he took particulars, seventy-six out of every 100 adult patients of the dispensary were found, on their confession, to be addicted to drink.

ALCOHOL AND PNEUMONIA.—Dr. Bull, one of the most eminent surgeons and physicians in New York city, recently addressed a medical class of the New York Hospital on "The Use of Alcohol in Cases of Pneumonia." He claimed that 64 per cent. of pneumonia patients receiving alcoholic medicines died.

INFANT MORTALITY.—Referring to the mortality among infants in Manchester, Dr. Ashby asks:—"Does any reasonable person doubt that if one-half the money spent in drink had been spent in the homes of the poor in providing comfort and food, the mortality in Manchester would have quickly been reduced?" It has been stated that 70 per cent. of the deaths among infants are due to ill-treatment arising from strong drink.

A TERRIBLE REMEDY FOR COMMON COLDS, INFLUENZA, INDIGESTION, AND OTHER AILMENTS.—Not a few who habitually take intoxicating liquors seek to remedy these complaints by getting drunk a few times, and thus founding a greater desire and fascination for drink, which so frequently leads to diseased conditions of a very marked character, or drives to a lunatic asylum. Are not simple remedies more effectual and less dangerous?—*Healthy Life*.

GUARDIANS AND "DELIRIUM TREMENS."—The Lewisham Board of Guardians have passed the following resolution:—"That when cases of delirium tremens are brought into the workhouse, the relieving officer who gave the order for admission shall at once communicate with the police, and if it can be traced where the drink has been served to persons so suffering whilst already in a state of intoxication, the Guardians shall oppose the regranting of licenses to publicans proved to have so offended."

TEETOTAL LONGEVITY.—A correspondent, in sending a contribution to the National Temperance League, says:—"We have three *medical* abstainers here—one ninety-eight last December, one in his eighty-sixth year, and myself in the eighty-seventh. I don't think I can make a better speech than to say that I am an abstainer, with all my senses for practical purposes perfect, reading the smallest print with my own eyes. The gentleman of ninety-eight has been an abstainer more than sixty years."

A MEDICAL TEMPERANCE LEAGUE.—The following are the two pledges of the "Temperance League of the Medical Students of Toronto." (1) I promise and hereby pledge myself by the help of God, to abstain from the immoderate use of intoxicating liquors, and neither to treat nor to be treated, and also to abstain from drinking in public places. (2) I promise and hereby pledge myself by the help of God, to abstain from the use of intoxicating liquors as a beverage. The League has 415 members on its books.

EVIDENCE FROM INSURANCE SOCIETIES.—The Sceptre Life Insurance Association, one of the offices which has a temperance section, states that of 774 policies issued during 1890, 476 or 61 per cent. were on the lives of total abstainers. In the general sec-



tion during the same year the "expected claims" were 110, and the "actual claims" 93, or 84.54 per cent.; the superior longevity of the temperance section being shown by the following figures:—Expected claims, 57; actual claims, 31; rate per cent., 54.58.

**DRUNKENNESS AMONG AMERICAN WOMEN.**—Dr. Lucy M. Hall, in a recent address at the Cooper Union, New York, is reported as saying that she has found, as the result of careful investigation, that "drunkenness is becoming alarmingly frequent among women;" that habits of drinking are extending, more especially among the girls employed in factories and workshops. Dr. Hall sounds a timely note of warning to such, from the vantage ground of a physician, against the habitual use of any stimulant as involving great danger to themselves and their posterity.

**LONGEVITY OF "FRIENDS."**—Mr. Alderman White, of Birmingham, in a letter to the *Daily Post* of that town, says:—"In your brief article on the 'Longevity of Quakers,' you give the death-rate among them last year as sixteen per 1,000, based on a membership of 15,500. The 248 deaths comprised in the obituary notice include, however, those also of Friends in Ireland, over 2,000 in number. This, therefore, reduces the death-rate to 14.17 per 1,000 for the whole Society in the United Kingdom, whose average age at death last year was sixty years and three months. It may not be unsuitable to add that the 'Quakers' are to a large extent abstainers from intoxicating drinks."

**DRINK AND HEREDITY.**—A writer in the February number of the *Fenness Miller Magazine*, in a suggestive article on "Baby's Inherent Rights," cites Professor Krofft-Ebing as giving this genesis of alcohol heredity: "In the first generation depravity and tendency to alcoholic excess; in the second insanity, drink mania, and paralysis; in the third hypochondria and tendency to murder; and in the fourth imbecility and extinction of family." It is an inherent right of the child that

those who assume the responsibility of becoming its parents should abstain from alcoholic indulgence, and thus avoid the hereditary peril by which it is attended.

**ALCOHOLIC PRESCRIPTIONS.**—Before the New York Pathological Society, Dr. Biggs, of that city, not long ago presented a striking object lesson illustrating the injury which sometimes attends the injudicious medical use of alcohol, thereby creating an abnormal alcoholic appetite. It was a diseased liver, taken from the body of a boy of thirteen years, who had died from chronic alcoholism. It was stated that the boy was treated with whisky for bronchitis when two years of age, and thus formed an alcoholic appetite which his parents continued to gratify. He was taking, at the time of his death, ten or twelve ounces of alcohol daily. On the day of his death he took a somewhat larger quantity, and all at once, and died in a few hours.

**ARTIFICIAL COFFEE BERRIES.**—The art of adulteration has made further progress. Many persons buy coffee whole, thinking that by grinding the berries themselves they avoid all risks of adulteration. It is so easy to mix with ground coffee chicory or other less inoffensive ingredient. M. Ludovic Jammes, inspector, reports, however, in the last issue of the *Revue d'Hygiène*, that a number of commercial travellers are offering retail grocers coffee berries at a price which yields 60 to 100 per cent. more than the usual profit. Good coffee is at present very dear, and when the tradesman expresses his surprise, the commercial travellers, so as to cover their legal responsibility, explain that the berries are artificially manufactured; and to avoid detection should be mixed with real coffee.—*Lancet*.

**ALCOHOL AS A SUBSTITUTE FOR FOOD.**—A New York physician, whose name is not given, says, through the *New York Sun*, that many men, who think they are too busy to eat lunch at mid-day, and therefore, resort to alcoholic drinks as a substitute, are doing the worst possible for their



stomachs; that "Alcoholic stimulants are the worst thing in the world for an empty stomach, finally causing catarrh of the stomach, interfering with the secretions of the liver, and destroying the ability to assimilate food." When men come to him in that condition he takes away the whisky or other alcoholics at once, and prescribes hot milk and Vichy. Where cold milk or solid food would be rejected by the enfeebled stomach, the hot milk, with one-third Vichy, will be retained, and many under this treatment have been reclaimed.—*National Temperance Advocate*.

**DRINKING AND SANITATION**—At the recent annual meeting of the Manchester and Salford Sanitary Association, the Bishop of Salford suggested that the drinking habits of the people were in a great measure the cause of the insanitary and unhealthy condition of the people, and proposed the following resolution:—"The Manchester and Salford Sanitary Association, and the committees of its affiliated societies in public meeting assembled in the Mayor's Parlour, desire to record their conviction that much of the insanitary condition of Manchester and Salford, and of the destitution and misery which are in their midst, is directly traceable to the drinking habits of the people; and their further conviction that it is of the utmost importance to press for a diminution in the temptations to intemperance which beset the population." Dr. Emrys Jones seconded the resolution, which was unanimously adopted.

**A CHARACTERISTIC OF HABITUAL DRINKERS.**—Habitual drinkers of ardent spirits are always making vain efforts to obtain more oxygen for their lungs. They frequently take deep inspirations, in the form of sighing; are apt to throw windows open on the coldest days, and sleep with the chest thinly covered, and with their hands clasped above their heads in order to give more play for the lungs. The reason of this lies in the fact that the constant presence of more or less alcohol in the system delays the conversion of venous into arterial blood, by interfering with

its power of absorbing oxygen. Thus tissue degenerations are invited, as there is insufficient oxygen to dissolve out the insoluble substances, and their accumulation causes mischief. In such persons the superficial veins are swollen and distended, and of a deep purple tint, especially noticed on the backs of the hands, through the presence of excessive carbon; and the skin all over has a soft characteristic feel resembling velvet.—*Philadelphia Medical World*.

**COLD AND MORTALITY.**—In the new number of the *Asclepiad* Dr. Richardson has given an able and most interesting article upon this subject, *apropos* of the recent cold season, which is well worthy of a careful perusal, not only by professional men, but by all who have an intelligent regard for the health of the community. As the paper extends to sixteen printed pages, we do not attempt to summarise what ought to be read at length, but may mention that the following is one of half a dozen "simple rules" which the worthy doctor lays down for the guidance of his readers:—"It is an entire mistake to suppose that the wave of cold is neutralised in any sense by the use of alcoholics. When a glass of hot brandy and water warms the cold man, the credit belongs to the hot water, and any discredit that may follow to the brandy. So far from alcohol checking the cold in action, it goes with it, and therewith aids in arresting the motion of the heart in the living animal, because it reduces oxidation."

**ALCOHOL IN WORKHOUSES.**—An important item of intelligence comes from Liverpool in regard to an experiment tried at the chief workhouse of that city. "It had been the practice," says the *Daily Post*, "to permit a pretty free consumption of porter, gin, whisky, and brandy, and indeed the indulgence was carried so far that drink was given to some of the people as a reward for little services they performed. It was determined to try a new plan, and on Thursday the results of the experiment were reported. Of course as the drink bill has gone down,

other bills have gone up, but it is a good deal more pleasant to hear of an increase in the expenditure upon beef and eggs than of disorder and disorganisation in the infirmary wards caused by the use of drink. Financially, the net result of the change has been a saving for the year of about £500. Morally, the improvement has been even more noteworthy. It appears that under the old system nurses, wardsmen, and even doctors, were at times to be not free from the effects of drink, but now a complete change has been effected, much to the advantage, no doubt, of the patients. The reform has more than answered the anticipations of those who advocated it, and has produced results which it is to be hoped will prevent any thought of recurrence to the old and reprehensible practice of giving to the occupants of the workhouse the beverage that has in many cases brought them there."

**DRINK AND INSANITY IN NORWAY.**—From statistics given by the late Dr. Dahl in his work "Spirituuous Liquors as Causes of Disease and Death in Norway," it appears that the number of cases of insanity attributed to drunkenness has shown a gradual diminution in recent years. Thus while among the admissions to the Ganstadt Lunatic Asylum at Christiania, between 1856 and 1860 drink was alleged to be the principal, if not the only factor in 13·7 per cent., the proportion fell to 2·4 per cent. for the period 1886-88. In the other Norwegian asylums the percentage of the cases of insanity attributed to alcoholism was 8·4 per cent. for 1872-75, and 3·5 for 1886-88. In Denmark, where the consumption of brandy is said to be five times as great as in Norway, there is also a decrease, though not nearly to the same extent, the percentage of drunkards among lunatics having been 11·9 for 1872-75, and 10·3 for 1886-88. Not less notable is the diminution of alcohol as a cause of death in Norway. Of 10,000 deaths recorded in 1853-55, alcoholism or delirium tremens was returned as the cause of 33·8 per cent., while in 1881-85 the percentage had fallen to 10·1 and in 1886-88 to 6·9. The statistics

of suicide are said to show similar results. English travellers who, following an illustrious example, would rather see men free than sober, have, no doubt, often chafed under the ultra-paternal restrictions on the sale of ardent liquors in Norway, but these figures bear eloquent testimony to the beneficial effects of such legislation on public health.—*British Medical Journal*.

**PENAL TREATMENT OF HABITUAL DRUNKARDS.**—A meeting convened by the Reformatory and Refuge Union took place on Monday, 8th December, at its offices, Charing Cross, for the purpose of considering the best method of treating habitual drunkards. Sir William Vincent took the chair and said that, as visiting justice to a gaol, he had been much struck by the inefficiency of the punishment inflicted upon people for constant outbreaks of drunkenness, as they seemed no deterrent to the vice of intemperance, while there was little chance of any permanent reformation being effected in prison. In the discussion which followed the Rev. G. P. Merrick, formerly chaplain at Millbank, and now of Wormwood Scrubbs Prison, agreed with the chairman as to the present system of punishment being a complete failure as regarded in the light of a deterrent. He considered persons who became victims of the vice to have lost all power of controlling themselves, and therefore they should be subjected to special treatment, either in special wards or prisons, or in homes specially provided for the purpose. Lord Norton thought the present mode of dealing with drunkards not only useless, but absurd, and advocated shorter terms of imprisonment, with special care and treatment for the class of prisoners under discussion. Dr. Norman Kerr suggested that a hint should be taken from the Legislature of South Australia, which provided for the compulsory detention in an inebriates' home of any person who should be convicted of drunkenness three times within six months. Resolutions embodying these views were afterwards carried.

THE

# MEDICAL TEMPERANCE JOURNAL.

July, 1891.

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## Original Contributions.

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### NOTES ON THE EFFECTS OF ALCOHOL-DRINKING UPON HEALTH, AND ESPECIALLY UPON LENGTH OF LIFE.

(*An Address delivered at the City of London College,  
26th January, 1891, with additions.*)

By R. HINGSTON FOX, M.D., M.R.C.P.

THERE is probably no one point in cases submitted for life insurance at which the medical examiner looks more closely than at this: What are this man's habits as regards alcohol? are there any signs of habitual excess in taking alcohol? For, apart from any theory or *a priori* considerations, the lives of those who take alcohol freely are found by experience to be more risky, to attain a less average duration, than the lives of other men. Proof of this statement need hardly be adduced: the statistics of the United Kingdom Temperance and General Provident Institution are now well known, as well as those of the Sceptre and other insurance offices.\*

The means by which alcohol-drinking shortens life may be conveniently grouped for present purposes under three heads.

In the first place, alcohol shortens life by *lessening the power of resistance to acute disease*. We all incur a liability to the attacks of acute disease; for example, of the specific fevers, such as

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\* These statistics show uniformly, throughout a long course of years, that the class of insurers who abstain from alcohol live longer than the class of non-abstaining insurers; yet the latter are, so far as careful enquiry and medical examination can secure it, only moderate drinkers. If then the moderate drinkers live shorter lives than the abstainers, *a fortiori*, those who take alcohol freely must live shorter lives,—the conclusion stated in the text.

scarlatina or typhoid fever or pneumonia. In a healthy person the onset of one of these disorders is attended by a certain reaction, showing itself in rise of temperature, flushed skin, and the other familiar signs of fever; a reaction due, as is now believed, to an effort of the body to combat and destroy the cause of the disease. It is not improbable that living disease germs may be killed by the high temperature, or by its products, and that what we call the symptoms of the disorder are in large part the phenomena of resistance. In healthy subjects these symptoms are well marked, sthenic yet not excessive, and the nervous system, upon which the first vehemence of the disease seems to be spent, bears the strain well.

But when the powers of resistance are weakened from any cause, and especially from the use of alcohol, it is clinically observed that the course of acute disease is less favourable. The fever is either excessive and destroys the patient, or it assumes an asthenic type, in which there seems to be a depressed condition of those nervous centres on which the vital functions (respiration and heart's action) depend. And often the sensorium is more profoundly affected; delirium is prolonged and of a low type; there is also tremor. Hence the practical physician, when called to a case of acute disease, besides enquiring into the life-history of the patient and his inheritance, seeks to learn all he can about his habits—as to sleep, work, and food, and especially as to alcohol. It is a good maxim: a healthy person under forty years of age ought not to die of acute disease. And the tripod of health has been constructed of these three rules: eat well, sleep well, work well. Alcohol-drinking disturbs this tripod, and it is one of the causes of that lessened resistance which makes acute disease fatal.

Thus far we have been led by the facts of clinical observation. When we inquire further, How does alcohol produce this lessened resistance? we enter on speculation. But this much may be advanced, that the toxic action of the drug on the tissues of certain organs, especially on the nervous system, contributes to this end. And further, alcohol by its stimulant action uses up reserve force, a fact which is self-evident from the very nature of a stimulant; in fever we need our reserve force, and recovery depends upon its existence. A man living entirely up to his income has nothing to spare for emergencies. When breathing power is only just sufficient for the maintenance of life, the slightest exertion gives rise to intolerable dyspnœa.

Secondly, alcohol shortens life by *impairing the stability of the nervous system*. Length of life is intimately connected with regularity and stability of habits. Those whose movements are ill-regulated and uncertain, whose self-control is from any cause



weakened, are exposed to greater risks than others. We say of a man who is at the scene of some disturbance, "He is well able to take care of himself;" his coolness of head and tact and self-control are such that we feel sure he will escape harm. Now it is these qualities which alcohol tends to destroy. They depend on the perfect action of groups of associated nerve-cells in the brain and spinal cord, and this action is rendered distinctly less delicate by the use of alcohol. Hence, indeed, all work which requires skill is better done without alcohol. The oarsman, the rifle-shooter, the wrestler, the draughtsman, all avoid stimulants before or at their work.

Length of life depends in no small degree, as I have said, upon good and regular habits of life. The most highly developed specimens of our race are men who, throughout long and healthy lives, accomplish much work; men versatile in mental culture, wide in sympathies, and high in aim. When we ask how it is that such men can do so much more work than others, and can combine in their own persons the knowledge and the practical aptitudes which are commonly distributed over many, we find this, that *automatism* is very largely developed in them. We find that acts which are in others the outcome of conscious mental processes have become in them automatic, that processes which in others depend on the exercise of reason, are in these highly developed minds little more than reflex. The same applies to the bodily habits: and the whole organism—mind and body—is so perfectly adjusted and knit, that disturbing forces are met by an automatic resistance and compensation, and the machine works with regularity and ease. This is only saying in other words that a man's habits are good and regular.

Now alcohol interferes with these perfect nervous adjustments; it interferes especially by its effect upon the highest nervous centres, so that the control which these exercise upon the lower becomes less perfect. And in so far as it does this, it hinders the formation of those healthy habits on which length of life much depends.

Alcohol shortens life, lastly, by *producing disease*. This is a large subject. A good general notion of the part played by alcohol in causing disease of the human body may be obtained from the discussion held a short time ago at the Pathological Society of London. That discussion was prolonged over three evenings and presided over by Sir James Paget, and it was conducted by some of the most eminent pathologists and observers in this country. And this was the conclusion to which the minds of those who listened to that debate were led, that the *structural* changes resulting from the use of alcohol are more extensive and considerable than was believed to be the case; and that alcohol

acts not unlike a mineral poison, for example, lead, upon the substance of the organs. The functional disturbance created by alcohol is indeed very great.\* But that which is of more serious import is the structural change, and this consists chiefly in an infiltration of the tissues of the part with small cells, such cells becoming fibrous, and the fibres contracting, until the proper substance of the organ is in great part destroyed. The organ shrinks and hardens—a condition much resembling that which occurs in old age; so that it is virtually true to say that those who drink become prematurely old. Such are the conclusions which may be gleaned from the Pathological Society's discussion—one which, it need hardly be said, was actuated by no bias for or against the cause of total abstinence.

It is unnecessary here to enter in detail upon the organs chiefly affected by alcohol. Those are most disordered which are most directly exposed to its influence; and hence the stomach and the liver show the principal morbid changes. The kidneys are less often and less severely diseased than the liver, since the drug reaches them in a more diluted form. The nervous system, and the various mucous surfaces, including especially the lungs, show marked changes. All these forms of disease tend to produce death; some of them are of themselves very fatal.

The relation of alcohol to consumption is a subject of much interest. Some few physicians still maintain that the use of alcohol hinders phthisis, but the evidence brought before the Pathological Society did not lend support to this view. On the other hand, it is proved that alcohol-drinking strongly promotes a certain type of phthisis,† that, viz., of a slow and fibroid character; and it may be that the chronic character and comparatively longer duration of this kind of phthisis has earned for the agent its preventive reputation.

Under these three heads, then, I have classed some of the means by which alcohol shortens life, my assertion being that its use lessens our powers of resistance to acute disease,—that it impairs our nervous stability and thus hinders the formation of healthy habits of life,—and that it produces diseases of its own. In support of these assertions I have appealed to the facts of clinical experience.

It remains to add a few words in reply to the obvious remark: "What you have stated applies to the excessive use of alcohol,

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\* See the author's paper, "Chronic Alcoholism, a Clinical Study," in this Journal, October, 1889.

† See paper by Dr. G. Newton Pitt in "Transactions of Hunterian Society," 1890-91.

not to a moderate [so called, physiological] consumption." I have been speaking of the effects of alcohol in the system, just as I would of the effects of lead or of mercury. From a scientific point of view, they are all three drugs,—poisons. "But lead or mercury is administered in small quantities in medicine?" True, and on such a basis let us put alcohol. Give it as a medicine, in certain cases, for certain definite ends, during certain periods. But who has suggested that lead or mercury should be taken as an article of daily food? The action of alcohol in small doses is essentially similar to its action in larger doses, though it differs in degree; and it is not possible to draw a line, within which the use of alcohol shall be strictly free from harm. Moderation is a comparative expression; the wise entirely avoid that which is, on the testimony of all, so apt to injure; and any young man, commencing his independent life, and desirous that that life should be a long, healthy, and useful one, that he should be strong to resist disease, of cool nerve and regular habits, and free from morbid tendencies, would do well to renounce an agent so fruitful of evil.



### ALCOHOLIC SELF-DELUSION.\*

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IN the following paper I intend to deal with an aspect of the Temperance question which closely affects us medical men, who have the responsibility of advising, not only as to medicine, but as to the avoidance or use of articles which are injurious to health or the opposite.

It has been proved to my satisfaction, and, I am sure, to the satisfaction of the majority of my hearers, that the avoidance of alcohol in any form improves the prospects of healthy life and length of days, and tends to preserve all the bodily organs in structural and functional health. We also believe that the use of alcohol by large numbers who call themselves moderate, and who are so considered by their friends, is a predisposing cause of many of the illnesses we have to deal with, and of the weak resisting power of many of our patients; it consequently happens that in our practice we all have frequently to advise abstinence from all forms of stimulants.

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\* Read at the annual meeting of the British Medical Temperance Association, held at the Rooms of the Royal Medical and Chirurgical Society, London, May 29, 1891.

Simple though this advice is, and backed up by reason and example, it is frequently unpalatable, and there is great difficulty in securing its adoption; our patients' personal experience so often differing from our advice that we commonly receive for answer, "In spite of all you say it cannot be bad for me since *I feel it does me good.*" This answer is given by so many different cases, suffering under such various symptoms, that it is hardly to be wondered at if alcohol was looked upon as a panacea before its physiological action was studied, and when the feelings of the patient were the chief guide to its effect. Dr. Lauder Brunton sums up this remarkable consensus of opinion well. He says:—

"If we inquire why people drink at all, the answers we receive are no less contradictory. The negro sweltering under a tropical sun drinks it to cool himself; the London cabman shivering at his stand on a wintry morning drinks it to warm himself; the weary traveller drinks it to strengthen his flagging muscles, and help him onwards to his destination; the literary man drinks it to give subtlety to his intellect or brilliancy to his wit; the overworked man of business drinks it to rouse him from his apathy, and give sharpness to his bargains; the gamester quivering with excitement drinks it to steady his trembling hand; and the man or woman broken down by misfortune, and weary of life, drinks it to drown care in temporary oblivion." \*

My object in this paper is to show that the feelings which lead to this claim to be a panacea are often delusive, and arise from the alcohol itself, and that the testimony of the most important person, and the one who would at first sight seem best able to judge, is, in many cases, utterly unreliable, and should not be allowed to make us alter or withdraw our advice.

It would be hard to find a better starting-point than the effect of alcohol on the temperature. The taker is absolutely certain that it imparts heat to his body, and on a cold night, before facing the outer air and the homeward walk, it is a common habit to take "a drop to keep out the cold;" but science proves that the feeling is delusive, and that, except for a transient period of simple exhilaration, the temperature is not increased but diminished, and that the more pronounced the effect of the alcohol the lower will be the drop in temperature. Much of our knowledge on this point we owe to the painstaking researches of our President, Dr. B. W. Richardson, who proved and measured the fall of temperature in man and the lower animals. He says:

"Through all the stages of intoxication the decline of animal heat is a steadily progressing phenomenon. It is true that in the first stage the heat of the flushed parts of the body is for a brief time raised, but this is due to a greater peripheral distribution of blood and increased radiation, not to an actual increment of heat within the body. The mass of the body is cooling, in fact, while the surfaces are more briskly radiating, and soon, as the supply of heat-motion fails, there is a fall of surface temperature. The fall becomes more decided from hour to hour up to the occurrence of the fourth and final stage." †

\* Disorders of Digestion, pp. 140 and 141. † Diseases of Modern Life, p. 222.



Dr. Richardson further remarks :—"The chilliness which the man who has indulged too freely in alcohol feels as he becomes sober is subjective evidence of this kind."\* There is here the perception of the true state of the case when the effect of the alcohol is passing standing out in sharp contrast to the deceptive feeling of the earlier stage.

The writings of Arctic travellers and of others who have had to face extreme cold show that experience may lead people to see through the deceptive feeling, and recognise the actual loss of heat caused by alcohol. Dr. Lauder Brunton expresses this in a striking manner :—

"When men are subject to great and prolonged exposure to cold experience has taught them the danger of taking spirits while the exposure continues. My friend Dr. Fayrer told me that, when crawling through the wet heather in pursuit of deer on a cold day, he offered the keeper who accompanied him a pull from his flask. The old man declined, saying, 'No, thank you, it is *too cold*.' The lumberers in Canada who are engaged in felling timber in the pine forests, living there all winter, sleeping in holes dug in the snow, and lying on spruce branches covered with buffalo robes, allow no spirits in their camp, and destroy any that may be found there. The experience of Arctic travellers on this subject is nearly unanimous; and I owe to my friend Dr. Milner Fothergill an anecdote which illustrates it in a very striking way. A party of Americans crossing the Sierra Nevada encamped at a spot above the snow line, and in an exposed situation. Some of them took a good deal of spirits before going to sleep, and they lay down warm and happy; some took a moderate quantity, and they lay down somewhat but not very cold; others took none at all, and they lay down very cold and miserable. Next morning however, those who had taken no spirits got up feeling quite well, those who had taken a little got up feeling cold and wretched, those who had taken a good deal did not get up at all, they had perished from cold during the night. Those who had taken no alcohol kept their heart warm at the expense of their skin, and they remained well; those who took much warmed their skin at the expense of their heart, and they died."†

The contrast between the real and apparent effects of alcohol on the special senses forms another instructive example. Alcohol blunts the acuteness of all the special senses. Dr. Parkes says :—"In no case does it seem to increase accuracy of sight; nor is there any good evidence that it quickens hearing, taste, smell, or touch; indeed Edward Smith's experiments show that it diminishes all the senses."‡ Dr. Ridge's interesting series of experiments § on the special senses shows the same thing clearly, and Dr Lauder Brunton || describes experiments with and without a previous dose of alcohol, testing ( $\alpha$ ) the time for simple reaction ( $\beta$ ) for discrimination ( $\gamma$ ) for selection. Exhibition was

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\* Diseases of Modern Life, p. 221.

† Disorders of Digestion, pp. 159 and 160.

‡ Practical Hygiene, VIIth Ed., p. 295.

§ *Medical Temperance Journal*, April, 1882.

|| Pharmacology.

made of flags of various colours, and the person experimented on made answering signals as rapidly as he could, the times of exhibition and of answer being marked by a chronograph. Dr. Brunton's summing-up demonstrates excellently this alcoholic self-delusion. He says:—"The influence of alcohol upon psychical processes is curious; for whilst it renders them much slower, the individual under its influence believes them to be much quicker than usual."

There is another good example in the interesting papers by Drs. Parkes and Wollowicz.\* A soldier was given a certain amount of work to do daily, sometimes getting alcohol, and sometimes not, and observations were made on his pulse; but what I want to draw attention to is his own testimony:—"He commenced the exercise and brandy period with the belief that the brandy would enable him to perform the work more easily, but ended it with the opposite conviction. . . . The brandy seemed to give him a kind of spirit which made him think he could do a great deal of work; but when he came to do it, he found he was less capable than he thought."

Another example of this peculiar action of alcohol is to be found in the difference between its real and apparent effects on digestion and the stomach. We are, I think, usually more inclined to accept a patient's account of the condition of his stomach than of any other internal organ, and yet on this point also alcohol may make his statements utterly unreliable. In Dr. Beaumont's classical work † a curious light is thrown upon this point. I shall read a few passages; the omissions are for shortness, and in no case alter the context:—

"1833, *July 28th*.—St. Martin has been drinking ardent spirits pretty freely for eight or ten days past, and complains of no pain nor shows symptoms of any general indisposition, says he feels well and has a good appetite.

"*August 1st*.—Examined stomach before eating anything; inner membrane morbid; considerable erythema and some aphthous patches on the exposed surface; secretions vitiated. Extracted about  $\frac{1}{2}$  oz. gastric juice; not clear and pure as in health, quite viscid.

"*August 2nd*.—Extracted one ounce of gastric fluids consisting of unusual proportions of vitiated mucus saliva, and some bile tinged slightly with blood, apparently to exude from the surface of the erythema, and aphthous patches which were tenderer and more irritable than usual. St. Martin complains of no sense of pain, symptoms of indisposition, or even of impaired appetite; temperature of stomach  $101^{\circ}$  F.

"*August 3rd*.—Inner membrane of stomach unusually morbid. . . . The gastric secretions much more vitiated. The gastric fluids extracted this morning were mixed with a large proportion of thick ropy mucus, and considerable mucopurulent matter slightly tinged with blood, resembling the discharge from the bowels in some cases of chronic dysentery. . . . St. Martin complains of

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\* Proceedings Royal Society, Nos. 120 and 132.

† The Accidental Gastric Fistula of Alexis St. Martin.

no symptoms indicating any general derangement of the system except an uneasy sensation and a tenderness at the pit of the stomach, and some vertigo, with dimness and yellowness of vision on stooping down and rising again; has a thin yellowish brown coat on his tongue, and his countenance is rather sallow; pulse uniform and regular; appetite good; rests quietly and sleeps as well as usual.

*“August 4th.*—Less of those aphthous patches than yesterday; erythematous appearance more extensively diffused over the inner coats, and the surface inclined to bleed; secretions vitiated; . . . less of the mucopurulent matter than yesterday; . . . no perceptible acid; appetite good; rests well, and no indications of general disease or indisposition.

*“August 5th.*—Coats less morbid than yesterday; . . . gastric juice more clear and pure than that taken for four or five days last past, and slightly acid.

*“August 6th.*—Coats clean and healthy as usual; secretions less vitiated. . . . Says he feels perfectly well, and has a voracious appetite.

“Confined to low diet and simple diluent drinks for the last few days, and has not been allowed to taste of any stimulating liquors, or to indulge in excesses of any kind. . . . The free use of ardent spirits, wine, beer, or any intoxicating liquor, when continued for some days, has invariably produced these morbid changes.”

I have quoted these observations at length as they show how far morbid changes can go on without any outward symptom; the stomach was markedly affected, and yet it was not for at least a week that St. Martin felt any symptom or showed any signs within the range of ordinary observation, and even then they were very slight compared with the pathological condition of the stomach, and all along he rested well at night and had a good appetite.

Other examples could easily be given, but the above are sufficient to show why it is that the testimony of patients as to the effects of alcohol on themselves is not reliable. It is not (except where there is a pronounced craving) that they wilfully make false statements, but that they are themselves deceived. I have used the term “alcoholic self-delusion” as it covers the two conditions of self-deluding and self-deluded, the alcohol causing delusion, and in order to gain a continuance or return of the delusion alcohol being taken.

The senses act more slowly, and a belief arises that they never acted so quickly; an after-dinner orator talks sad rubbish, and is delighted with his own eloquence; the pen runs rapidly, and the writer rejoices in his work until he reads it over next morning; a man reels along the street, and congratulates himself on hiding his tipsy condition; less work is done, and yet the worker is satisfied he is doing more; that which is not food is taken, and the body feels fed; that which reduces the temperature is taken, and the body feels warmed; that which narcotises is taken, and the body feels stimulated; that which causes a train of morbid symptoms is taken and the symptoms are hidden, whilst the morbid conditions are made worse. Too often we meet with the further

stage when the mind has grasped the evil that is being done, and yet for the sake of the present relief and of temporary forgetfulness the sufferer refuses to give up his destroyer.

Dr. Pearce Gould, in a recent speech,\* pointed out the marked change in the administration of alcohol in London hospitals within the last twenty-three years; he said that as a student he never saw a case treated without alcohol. The students of to-day had a greater opportunity, they could compare case with case, and the lessons they were learning were burning into their minds. I wish the same could be said of our text-books of medicine and therapeutics, which still in too many cases give merely general directions, and afford no real guidance as to when and where alcohol should be administered.

I would venture to lay down the following practical deductions, which, although not by any means new, are still not sufficiently attended to :—

1. That the actual effect of alcohol in disease should be more studied.†
2. That the routine administration of alcohol should be given up.
3. That the responsibility incurred in ordering it should be more realised.
4. That alcohol should be given, not to mask symptoms, but to cure disease.
5. That it should only be given when it is considered that no other drug will do as well.
6. That its administration should be continued only as long as it is really necessary.
7. That it should be given, not as spirits, wine, or beer, but as pure alcohol, suitably diluted.
8. That the testimony of the patient as to the effect of the alcohol should be received with extreme caution.

In conclusion, I would throw out a suggestion. If alcohol has the effect of blinding the reason and warping the judgment, so that people are deluded into believing it is doing them good, whilst really it is doing them harm, is there not a special reason why medical men should prefer to abstain? Not only will abstinence afford us, in common with others, better prospects of longevity and health, but it will be of use to us in another respect. Our professional responsibility is heavy, and on our judgment and action often hang the issues of life and death. Should we not keep our intellects clear, our senses acute, and is not this

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\* *Alliance News*, 22nd May, 1891.

† See, as a model of what is wanted, "Chilblain Circulation," *Asclepiad*, January, 1886.



best done by abstinence? By abstinence our influence with our patients is increased; it is no longer, *Do as I say*, but, *Do as I do*. By membership in the British Medical Temperance Association we still further widen our sphere of usefulness. The larger our Association grows, the larger it is likely to grow, and our membership will bring us into touch with an increasing number of abstaining medical men and medical students, and Temperance will be promoted in a profession where it is of the first importance, as it is to that profession the public look for guidance in all matters relating to health.

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## Miscellaneous Communications.

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### THE EARLY EYE-SYMPTOMS IN CHRONIC ALCOHOLISM.

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As is well known, the organ of vision, like so many other parts of the body, suffers insidiously from excessive and long-continued over-indulgence in alcoholic beverages; it is the purpose of this paper to point out the early symptoms referable to the eye, which occur at a stage of chronic alcoholism when the amblyopia alcoholica has not yet become very marked. Such observations can best be made in the cases of private patients and among the better class of dispensary patients, since the lower classes are very apt to neglect seeking medical aid until vision has become very much impaired.

The eye symptoms produced are quite constant, and are sufficiently well-marked to be observed in quite an early stage of the condition which we call chronic alcoholism—a condition which may be defined as one in which the quantity of alcohol habitually and repeatedly taken exceeds that which can be assimilated, and results in producing toxic effects of greater or lesser intensity and after a longer or shorter period.

It is commonly stated and usually accepted that the maximum daily

quantity of alcohol, which, if properly diluted, can be indulged in every day without causing evil effects eventually, is an ounce and a half. This would represent about three ounces of whisky, about nine ounces of sherry, about a pint of light wine (claret, Rhine wine, &c.), and about two or three pints of beer. But, as is the case in the effects upon other parts of the body, much larger quantities are taken regularly by persons who never complain of symptoms referable to the eye, and who would not present any such symptoms if functionally examined. And, in like manner, the time during which alcoholic excesses can be indulged in before eye-symptoms show themselves, also varies. The frequent indulgence in non-intoxicating doses seems to favour the occurrence of amblyopia *ed abusu* much more decidedly than does the drinking of large quantities so as to intoxicate at longer intervals. Whisky certainly causes the majority of cases in this country. In the great majority of cases the condition occurs in the male sex, which is as we would most naturally expect it, considering the much greater frequency with which

men acquire the alcohol habit than do women. Almost always both eyes are affected, though the symptoms may present variations in degree of severity in the two eyes.

The symptoms are :

1. Conjunctivitis.

Injection of the ocular conjunctiva.

Congestion of the iris.

Spasm of accommodation.

Contraction of the pupil.

Photophobia.

Nyctalopia.

Glimmering sensation in bright light.

Scotomata (colour and white).

Amblyopia.

Partial (temporal) atrophy of the nerve.

The *conjunctivitis* is of the catarrhal variety, and is of very common occurrence in chronic alcoholism. It is peculiar in its "initiative" nature. Its severity is subject to changes from day to day according to the quantity of alcohol indulged in. The *injection* of the ocular conjunctiva is not merely a part of the conjunctivitis; it may exist independently of the latter, presenting a marked appearance and sometimes accompanied by *congestion of the iris*. There will then be found a well-marked ring of circumcorneal redness—the condition indicating an implication of the ciliary region in the vascular disturbance. As is the case with the conjunctivitis, these two symptoms depend largely upon the immediate effects of the quantity of alcoholic drink taken, so that they are especially marked after a debauch.

*Spasm of accommodation* is not infrequent in alcoholic subjects, and becomes noticeable, especially, because male adults are rarely otherwise subject to it. The amount of spasm seems largely to depend upon the quantity of drink on the same or the previous day; it may interfere materially with a functional examination of the eye in testing for errors of refraction, and may therefore necessitate the use of atropine or of homatropine before the accommodation becomes relaxed.

The *pupils* are apt to be *smaller* than usual in chronic alcoholism; during

intoxication or after a debauch, the dilated pupils of acute alcoholic poisoning exist.

*Photophobia* and *nyctalopia* exists quite frequently; and a *glimmering* sensation, especially in bright light, is sometimes complained of. The *photophobia* may depend upon the conjunctivitis to which in some cases the congestion of the iris and injection of the ocular conjunctiva may be added as additional factors. The principal cause, however, is probably *hypures-thesia of the retina*—a condition which is held responsible for the *nyctalopia*. The latter symptom may be defined to be the ability to see better by dim light than by light illumination—a condition resembling what has been described as *rectinitis nyctalopia*. While these patients may occasionally really have an increase in the acuteness of vision when the illumination is less intense, as a rule there is no increase, but rather a slight diminution in the acuteness of vision, with a less bright light; so that the improvement is merely apparent, and not real. But these patients feel very much more comfortable in a subdued light, and hence imagine they see better. The influence of diminished illumination is quite often marked, and many such patients have the habit of wearing smoked glasses, often resorting to these without the advice of any oculist, because they cause the eye to feel more comfortable.

Quite early the existence of *central scotomata* can be demonstrated; that is, a small part of the centre of the field of vision will be defective in its appreciation of colour, or even of white. This symptom usually exists quite early, but it may require careful testing in order to be found. The portion of the field which will be defective is almost always a small oval with its long axis, placed horizontally, extending from the point of fixation to the blind spot, and partially or entirely including the latter. At first these scotomata exist only for green and red; later, these may be a scotoma for purple, and later, also, for white, that is, there will be no sight at all over this small oval area. These

scotomata, whether for colours or white, are almost always negative or relative—not apparent to patient; they may, however, be absolute, and thus appear as constant spots before the eyes, just as in certain diseases of the retina. They are, however, almost always central. The patients may be conscious of colour defect, but usually the colour perception is good excepting this central scotoma. If in this early step they are tested for colour-blindness, as by Holmgren's coloured skeins, they will not be found defective, and will match colours well. A number of such cases have, however, complained to me that everything appeared less bright to them than it had formerly, though they could distinguish colours quite readily.

Even though these central scotoma for colours or white are found, there may be no *diminution in the acuteness of vision*; but commonly some amblyopia becomes manifest, when the symptoms already mentioned are found. This reduction in the acuteness of vision again is almost always central, so that the circumference of the field of vision is not usually affected and peripheral vision remains good. The amblyopia does not, as a rule, advance rapidly; very often in the early stages  $\frac{20}{40}$  or  $\frac{20}{30}$  will represent the patient's sight. Even in advanced stages, total blindness from amblyopia alcoholica is uncommon, though this is probably because the patient has sought medical advice before such an extreme result has occurred and has reduced or stopped his alcoholic excesses. There is no constant relation between the amount of amblyopia and that of colour scotoma. It is quite interesting to observe how quickly the amblyopia will respond to changes in the habit of the patient, and how, after a few weeks of abstinence from alcohol, the vision can be brought up from, say,  $\frac{20}{40}$  to  $\frac{20}{30}$ , and how quickly also there is a response in the opposite direction

when the alcoholic excesses are resumed.

In most cases of amblyopia *ed abusu* (60 to 70 per cent.), the ophthalmoscope reveals a well-marked picture. In the very early stages, no abnormalities of the fundus may be seen, or perhaps only a little hyperæmia of the disc or a slight swelling at its margins, with perhaps the appearance of white striæ along the blood-vessels, especially near the margins of the disc. But even before an advanced period there is apt to be a well-marked and characteristic picture—a pallor of the temporal portion of the disc, due to partial atrophy—to a wasting of the fibres constituting this segment. This pallor must not be confounded with a certain amount which is physiological and is found in a certain percentage of normal eyes examined with the ophthalmoscope; there may, therefore, be cases in which it will be difficult to draw the line between the physiological pallor and the appearance of the pathological atrophy. But usually no such difficulty will be met with, and the ophthalmoscope picture will be a characteristic one.

For a long time nothing was known concerning the pathological anatomy of this condition; but this was first explained by Jamelshon and by Vossius in 1882 and confirmed by Nettleship and by Burge in 1884, and then by Edwards and Ulthoff in 1886. All these investigators found an interstitial neuritis—proliferation of connective tissue and secondary degenerative descending atrophy of those fibres of the optic nerve which pass from the temporal side of the disc to supply the macula lutea. The atrophy affects chiefly the nerve fibres of the fasciculus cruciatus. These spread from the temporal part of the disc to the region of the macula lutea; hence the occurrence of central scotoma and the form of the latter (oval horizontally).—*Quarterly Journal of Inebriety.*

## SIR MORELL MACKENZIE, M.D., ON TEMPERANCE.

IN the Livesey Central Hall, on a Sunday afternoon in April last, Sir Morell Mackenzie, M.D., presided at a crowded meeting called to hear a lecture by Mr. Caine on his recent experiences in India. Owing to untoward circumstances Mr. Caine was not present, but in his place Dr. Edmunds was in attendance to deliver a lecture, and was introduced to the meeting by the chairman as an old friend of thirty years' standing, who had in bygone days carried off all the prizes that could be obtained at the London Hospital by any medical student. The promise of eminence in his profession which Dr. Edmunds then gave had happily been realised in the later stages of his career.

Dr. EDMUNDS, in the course of an interesting and exhaustive lecture, mentioned, amidst the laughter and applause of the meeting, that it was just thirty years since Mr. Ling had caught him in the same trap in which Sir Morell Mackenzie had been caught that afternoon, by asking him to preside, as a non-abstainer, at one of his meetings. On that occasion he heard several working men speak. Their addresses profoundly impressed him, and led him to think over the matter, so that he had been brought by various stages of experimental research and observation to his present well-known views on the temperance question. He hoped that the Chairman (now a pupil in the same school) would undergo the same processes, and he pointed out to the meeting the enormous service it would be to the temperance movement if such should be the case.

A cordial vote of thanks to the Chairman having been adopted,

Sir MORELL MACKENZIE said: I am in this position, ladies and gentlemen, that you have given me your vote of thanks before I have imparted to you my opinions, and I am very much afraid that, at the conclusion of my remarks, you may pass a resolution withdrawing the former one and condemning me. When I first heard that Mr. Caine was unable to attend

through circumstances into which I need not enter, I regretted it because he is a man of great ability; but when I had heard Dr. Edmunds's philosophical and learned discourse, I felt that no one this afternoon could have regretted the absence of Mr. Caine. It has been said that there are three ways in which you may learn to know a man. You may either travel with him, or you may divide an inheritance with him—as to which people seldom agree—or you may eat a peck of salt with him, which means that you must live in his company and know him intimately for many years. Now, I had the privilege of travelling six weeks with Mr. Ling, during which time we never had a difference of any kind, and I thought I had formed a pretty good estimate of his character—in fact, I thought I knew my man, but Dr. Edmunds has exposed him. I thought he was an honest and straightforward man when he asked me to appear here to-day, whereas I was totally unaware that he was going to make me undergo a sort of training process in the advanced temperance school. I thought he knew I was a moderate and temperate man, but he seems not to be content with that, though if at the end of thirty years I can attain to the same level as Dr. Edmunds, probably both he and I may be well satisfied with such a result. After the kind words of Dr. Lees, I must confess that in a great hurry this morning I merely jotted down some few propositions which I shall submit, some of which you may look upon as mere platitudes, some of which you will agree with, and some of which will have that by no means pleasant effect to which Dr. Edmunds alluded—the effect of giving you the stomach-ache. If they do have this effect, I only hope that your pains will be of short duration, and that your recovery will be complete. The first little remark I want to make is that in speaking of alcohol the public, and especially patients, often imagine that medical men refer only to spirits,



whereas every fluid which contains any alcohol is really meant to be included under that generic term. The other day I saw a man who had taken the pledge. He had been a drunkard, and I persuaded him to take the pledge because I thought it would be the only thing to make him temperate. However, he presented himself again, and I said, owing to my suspicions, "I hope you have not been drinking?" He said, "I have not touched a drop for a week." I said, "What do you take?" He said, "Oh, simply a little claret—three or four glasses a day." Now that man had not any idea that he was breaking his pledge. It is very important that medical men when speaking to patients should impress upon them that alcohol refers to every fluid that contains it. My second proposition is this. Though great untruths have existed for thousands of years the mere fact of their having existed all that time does not say anything in their favour. The fact that alcohol or some corresponding agent for exciting the imagination or deadening the sensibility is used in nearly all countries, whilst it does not prove the utility of such agents, indicates nevertheless, that their use is likely to continue. I consider that in spite of the great efforts made by philanthropists and others the relief which is supposed to be obtained from intoxicants in the increasing wear and tear of life and the great increase of competition, along with the difficulty people have of making their way in the world and the disappointments they have to undergo—I say that in spite of the efforts to prevent it, I think the use of intoxicants is not likely to diminish in the world as it becomes more populous. I believe that in spite of all our efforts stimulants will be used, and that though those efforts may do some good, yet in spite of them all this consumption will go on. It is for this reason, ladies and gentlemen, that I put myself forward as a miserable example as a moderate man; and let me tell you the moderate man is always at a great disadvantage, for he is not looked upon with favour by either side. The

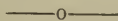
people who like alcoholic liquors say he is of no good, and the teetotalers say that his example is detestably bad. In fact, he is neither fish nor flesh nor a good red herring. Here is a proposition that you will all agree with, that alcohol in excess is a very fertile source of disease, and also the next one, that the line between moderation and excess is very easily passed, and that even people who consider themselves temperate generally run slightly into excess. The reason I put that down is because some of you who have only heard what I may call "the extreme view of the question," may not be aware that there is such a thing as a standard of moderation. Some people say that every sensible man after forty knows what suits him. The saying was originated by Lord Byron that after forty a man is either a fool or a doctor. I wish to bring to your notice the standard of moderation as laid down by that great hygienic authority, Dr. Parkes, though I am sure it will shock some people—two glasses of strong wine in the twenty-four hours, such as port, or full-bodied sherry, or hock, or four glasses of lighter wines, such as claret, and twenty ounces of beer. That means a standard pint. To many people that will be too much. Dr. Parkes allows also a sherry-glassful of brandy. He takes the sherry-glass as his standard, which holds  $2\frac{1}{4}$  ounces. I think that is much too much brandy, and I think it should never be taken except under medical advice. Whilst I think most people would be better without this wine that might be taken, yet that is a standard for moderate people. Personally, I should be very ill indeed if I took as much as two glasses of port wine or four glasses of claret. I do not suppose I take six glasses of claret in two years. As a further personal explanation, I very rarely touch stimulants of any kind, and whenever I have excessively hard work (especially when I have missionary work combined with medical practice) I consider it ruinous to take a glass of wine. I could not do my work properly afterwards. You will find, as a rule, that nearly all the

leading physicians in London, though they may take wine in the evening, never touch it during the day. It is quite the exception to find any of the better-known physicians touching wine for lunch. Stimulants have a most injurious effect the earlier they are taken in the day. This is proved not merely by general observation, but by experiment. If you take two glasses of wine in the morning at eleven o'clock, you will find that after about half-an-hour the pulse will be raised perhaps six or eight beats beyond what it was when they first took the wine; but that after a lapse of two or three hours their pulse will be three or four beats below what it was when they took the wine, and therefore this shows its injurious effect. If they take it in the middle of the day they will find the pulse will be increased in frequency five or six beats, and go down to two or three beats in an hour or two. In the evening it will have very little effect on the circulation. That shows that if stimulants are taken—mind, I am not by any means advocating that they should be—they should be taken in the evening. That is the reason why our ancestors, who were not temperate, and who frequently went under the table at an early part of the evening or afternoon, got up in the morning finding they had not done themselves so much harm as they would have done had they taken their libations early in the day, without sleep afterwards. This leads me to the point mentioned by Dr. Edmunds, and, as he has said, I have always been independent, and that is why I venture to appear before you to-day. I dare say I am a misguided person, but if so it is partly due to the machinations of Mr. Ling. He said I might say what I liked, and that is what I mean to do. I think you will see I have the greatest sympathy with all people who are in favour of temperance and teetotalism. I am of opinion that no class of men have done more good than those who have worked for teetotalism. No man could have been connected with a large general hospital, as I was, for many years, and have seen the

enormous amount of disease, misery, and crime that is produced by alcoholic drinks, without having the greatest sympathy with those who are trying to diminish its consumption. Now, another of my propositions is this—that people who take a small quantity of wine frequently in the day, if it is only a dessert spoonful, do themselves as much harm as if they took at one and the same time a larger quantity. They are certain to produce disease. Some of the worst cases of disease I have seen have been cases of this kind, and particularly amongst ladies. I have known one lady who was constantly sipping stimulants in this way, and nobody would have imagined, or even believed it. It was only her maid who made the case plain to me, and she showed me the champagne bottles, saying, "This is the drink her ladyship takes." I do not entirely agree with Dr. Edmunds as to leaving off stimulants immediately, though I do in cases of delirium tremens; but in cases where people have reached a considerable age, or are in delicate health, or where they have lived almost entirely on stimulants, I do not believe in their sudden withdrawal. Indeed, I have seen a great many people killed in this way, and the very lady of whom I have spoken is a case in point. I went to America, and was away some months, leaving her in charge of a very clever doctor, who soon after I was gone knocked off her stimulants, although I should add she did not live entirely upon them, but took a very small quantity of prepared food. Under some circumstances, people cannot leave off stimulants altogether and suddenly. Women, if they take anything at all, ought only to take half the quantity of men. Children ought never to take stimulants. I do not think anybody under the age of twenty-one should be allowed to take stimulants. I think it wrong and wicked to allow young people to take wine. Their nervous system is most delicate, and reacts very readily in regard to stimulants. In their case stimulants nearly always have a very bad effect, and ought never to be allowed. My next propo-

sition is that stimulants, if taken at all, should never be taken except at meals. From the medical point of view, I would call attention to one or two points, and say that, excluding epidemic, contagious, and hereditary disease, the abuse of alcohol is probably the most frequent cause of death. Then the recuperative power in acute diseases is lessened to a great extent by the previous abuse of alcohol. I have known lots of cases where I have seen men stricken down with pneumonia and pleurisy, and have known that they would have recovered but for the previous damage they had done to their system by drinking. Nothing destroys the nervous system so much as the constant use of alcohol, and that is why patients afflicted with serious diseases seldom recover if they are in the habit of taking much stimulant. In acute diseases alcohol is rarely required, though its place cannot be invariably supplied by the diffusible stimulants such as ammonia and ether. I see at the London Temperance Hospital even there are cases which are occasionally treated with brandy and egg filip. I cannot recollect when I have ordered any stimulants in cases of acute disease, though I should not hesitate to do so if I thought it necessary. In convalescence from acute disease wine is often of great use. I have seen persons get round more quickly by the use of a little wine than if they had not taken it. I do not mean to say that they would not have got better without it, but with wine they have got better quicker. In some chronic and incu-

erable diseases I think life may be prolonged by the use of stimulants. I am sure that is about the most shocking remark that I could make in this hall. In old age I believe wine is sometimes of great use, and wine has been called "the milk of old age." I feel certain that is another shocking remark to make here. At the same time, I think that it is one of the reasons why you should not take wine in youth, in order that you should have greater benefit should you resort to it in age. It is lamentable to see the enormous waste of money in drink amongst the working classes. When you imagine that throughout the country there are thousands and tens of thousands of working men, who labour all their lives, who are temperate and honest people, and who are not able to make provision for their old age, and who, when they get old, either have to be kept by their relations, or to go into the poorhouse—I think it is most lamentable. If the money spent in beer were saved, no doubt a large number of these people would be able to provide for their old age. Had I known I should have the honour of addressing you at any length, I should have endeavoured to prepare a speech more worthy of you, but it is only a day or two since I learned that something a little more than what is ordinarily expected of a chairman would be required of me. The time may come, however, when I shall be able to say something more worthy of this great temperance cause.



THE ALCOHOL FAMILY.—A Fellow of the Chemical Society has been studying the composition of the average whisky as drunk, and has communicated the result of his researches to the Society of Chemical Industry in London. In addition to ordinary alcohol, this gentleman finds that whisky contains: Normal propyl alcohol, isopropyl alcohol, alpha-normal butyl alcohol, beta-isopropyl butyl alcohol, tertiary butyl alcohol, alpha-normal primary amyl alcohol, beta-isopropyl amyl alcohol, gamma iso-primary amyl alcohol, methyl-propyl carbinol, isopropyl hexyl alcohol, isopropyl heptyl alcohol, acetic acid, ethyl acetate, ethyl valerate, amyl acetate, amyl valerate, aldehyde acetone, pyridine, acetal and furfural.



## TYPES OF CHRONIC ALCOHOLISM.

Dr. MAURICE GUAJA gives in the *International Review* (of Rome) an interesting paper on "Alcohol and Alcoholism." The following portion, which we take therefrom, is one of the best in this scientific paper. The author brings on the scene, not without grim humour, some original types of alcoholism—the unconscious alcoholic, the sensible alcoholic, and, lastly, the ashamed alcoholic. Dr. Guaja says:—

Alcoholism only undermines peoples because it overwhelms individuals, as Zola says, as with blows from a club. The drunkard, in short, is not long in becoming an invalid. It is from this special point of view, of the distant effects of alcohol on the health, that I am now going to devote myself, occupying myself less with alcoholism than with alcoholics. If there be a means of decreasing the number of the latter, it is by showing them their portrait and placing them face to face with themselves, as one places a weeping child before a glass. It is for me a duty and a pleasure to publicly thank my excellent friend Dejean de la Batie, who has made alcoholics one of his dearest studies, for having lent me, for the purposes of this article, the assistance of his observations. Here is a dialogue which goes on daily in the consulting rooms:—

"Doctor, order me something to make me sleep. I should not so much complain of my sleeplessness if I did not suffer from my pains. I cover myself as little as possible when I get into the clothes; but as soon as these get warm, as soon as I am on the point of feeling what was, formerly, for me the benefit of the bed, I experience indefinable pains. How shall I explain myself doctor? One would say electrical sensations: tinglings, prickings, twitchings, twinges, intense smarting everywhere. I shall certainly finish by believing that there is something alive, an insect for instance, which is amusing itself

by scratching me under the skin, in the fatty parts of the legs. I esteem myself fortunate, however, when shocks do not take me. And the cramps! One night, for example—I must avow that the preceding evening I had dined better than ordinarily—I thought that a power, as unknown as inveterate, was taking pleasure in separating my toes one from the other and in afterwards twisting them on to each other, I told all that to my doctor. He spoke of the commencement of locomotor ataxy. Do you think that my mind is affected, that I am the victim of painful hallucinations?"

"Wait. Tell me the rest. Sooner or later you go to sleep. How do you get on when asleep? Have you dreams?"

"Nightmares rather. One night bulls pursue me; another time serpents menace me; or again there are the noises of a battle, the whistling of bullets in my ears——."

"In short, these accidents are always directed against you. And your awakening?"

"It is not painful. But on putting my foot to the ground I experience almost every day a general uneasiness: my head swims, my eyes are troubled; this period is very short, and I then have a semblance of vomiting. I spit some whitish and transparent liquid, nearly a spoonful."

"My diagnosis is made. What do you drink?"

"Ah! I forgot to tell you, doctor, that after this glairous vomiting, feeling myself not well and without strength, I have fallen into the habit of afterwards taking, fasting, a small glass of brandy."

"I understand!"

The intoxicated of all kinds have this point of resemblance: The morphine maniac has not strength to go to his work without stimulating himself by taking his first dose of morphine. The woman who poisons herself with ether would remain in bed indefinitely if she did not think to



draw a little energy by passionately breathing at the small phial which never leaves her. The alcoholic who has no idea of his state, like he whose confidence I have just reproduced, is a very common type. He always presents himself in our consultations to complain of the miseries of his sleep. But he laughs in the face of the doctor who wishes to enlighten him as to what he is suffering from. "So-and-so drinks more than I and he is not ill." He will always adduce this argument without wishing to understand that, in its march, alcoholism must reckon with the profession, the habits, and the temperament of the individual. Whatever it be, these three signs which we have just studied—subjective phenomena of tingling with cramps and subsultus, dreams characterised by a terrifying note, glairous phlegm in the morning—these three symptoms are amply sufficient to allow a doctor to diagnose the starting of chronic intoxication by alcohol. A person who sleeps badly must inevitably be bad tempered; thence an interesting symptom which may be communicated to the doctor by the surroundings of the alcoholic, when sometimes the latter does not himself clearly see the transformation of his character. We must add thereto a particular tendency to lying and exaggeration. Sentimentality is a note which alcohol develops, especially among women. A woman who drinks soon weeps without a motive. However little, however discreetly one interrogates her as to her habits, she will none the less show violent vexation. And I do not speak here of the unfortunate person who is treated at the hospital. It is rare for a doctor to have the self-possession to ask a woman if she drinks absinthe. And, still, there are a number of women among those who drink, alcohol having taken a great hold on them, seeing their sedentary habits.

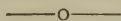
If I have insisted on these details of the diagnosis, it is because it is necessary that everyone should know that alcoholism can no longer hide itself from the eye of the doctor. This affection, the scientific study of which

dates from thirty years since, has such deeply-cut characters and such precise symptoms that one can no longer dispute their cause when they are observed. Medicine, which is becoming more and more of a science, has remained up till to-day something of an art by the study of physiognomy, of the *facies* of invalids. Still, in order to recognise the features of the alcoholic, it is not necessary to be endowed with a special talent. The intoxicated has his face wrinkles clearly shown, the wrinkles of the careworn man with a do-not-know-what sort of a mixture of perplexity and disquietude spread over his face. All that perhaps does not represent an element of diagnosis necessary and sufficient of intoxication, but it may be the luminous light which we shall throw on the path of the habits of the diseased.

This is not all. My patient spoke while I was looking at him. Why that halting and hesitating speech? This intermittent stammering and these uncertain sentences? Especially why this slight convulsive trembling of the lips when the sentence is finished? I have seen, every day, one of my masters, Dr. Lancereaux, judge his man by the trembling of his lips; no more was necessary to him, who has so well studied alcoholism and its effects. Unfortunately, this sign is only in alcoholics relatively advanced. My alcoholic is tracked, despite his denials. This symptom "disorder in the motility," or otherwise called trembling under all its forms, strengthens my conviction. To ask a patient to show his tongue is quite natural. I know that the tongue of one suffering from typhus trembles; I know also that it trembles in a permanent manner with the alcoholic intoxicated. "Extend the two hands and spread out the fingers." There is no Paris workman who has entered a hospital to whom these words have not been addressed. It is the most commonplace way of tracing alcoholism. The fingers vacillate up and down, and down, and from right to left. This trembling is perhaps the most precocious functional disorder of alcoholism. It affects in the first place the

hands and arms, it appears first of all at intervals; it is especially notable on awakening, after the period of stomachic anguish. We must then see the alcoholic dress himself. The more he endeavours to render his movements precise the more he

trembles. It is amusing to see him do up his boots. And when the same man, a small glass between his fingers, wishes to chink glasses, he has to mind he does not spill the contents of his glass. Yet this movement is habitual to him.



### PROFESSOR FOREL'S ADDRESS TO STUDENTS ON THE DRINKING CUSTOMS.\*

IN reading this admirable and comprehensive survey of our question from the pen of our able and eloquent Swiss colleague, we are disposed to wish that it could be brought in its entirety under the notice of all University men in our own country. Some of its illustrations and details may, perhaps, be unnecessary for an English audience or an English reader; but the clear statement of facts and the cogent reasoning contained in it are of no mere local force.

We may, perhaps, take some encouragement from the consideration that Professor Forel's picture of the tyranny of custom, as prevalent in Germany, is more like what prevailed in England thirty or fifty years ago, than like our present state—in which we may at any rate claim that individual liberty to abstain is, in good society, unquestioned. Yet there is still too much truth in the forcible indictment with which he opens his address:—

“People used to drink water. Now-days the bad habit of taking alcohol daily, both at meals and between meals, has so fastened upon the people that women and children—even infants at the breast—are poisoned with it; people imagine they are nourishing and strengthening themselves with it; nursing mothers fancy they get strength for themselves and their

babies; and the ability to bear a great deal of alcohol has become a thing to boast of. Our ancestors thought it their duty to win fame by heroic deeds; the youth of to-day strive to attain it by swallowing a large quantity of beer. Public-houses spring up like mushrooms, and in them father, and also, of later time, even mother and children, waste their earnings in drink, to the ruin of family life. . . . Our people now look upon alcohol as an indispensable part—if not the most indispensable part—of human food. . . . In a club in Bremen I saw, not long ago, a notice in large letters: ‘Dinner from 12 to 4 o'clock, from 2s. 6d. and upwards. No wine need be ordered.’” On this notice the professor comments as an exceptional arrangement, showing the startling prevalence of compulsory drinking; and he further illustrates this by his own experience at a naturalists' banquet in Bremen, at which 800 persons sat down, and at which he had the greatest difficulty, after long delay, in inducing a waiter to bring him water, which was only to be had in a rinsed-out wine-bottle!

To the supposed reply of the opponents of abstinence, that only excess and adulteration are to blame for the evils of drunkenness, that the moderate use of intoxicants does no harm—nay, that alcohol so used gives strength, mental vigour, warmth, refreshment, &c., the professor replies that in each word of these allegations there is a lie, a deception—perhaps self-deception—or at best a misunderstanding. “All alcoholic drinks, even the most diluted, like beer or cider, are just as much poisons as morphia, opium, hashish, coca, &c. Because they are

\* “The Drinking Customs in their Hygienic and Social Bearings, and their Relation to College Students.” An Address to the Students' Temperance Societies at Christiania and Upsala, by Dr. August Forel, Professor in the University of Zurich.

more attenuated, larger doses are taken, and that is the only difference." The address proceeds to discuss, in the first place, the question whether any alcoholic beverages taken in moderation, for enjoyment or for nourishment, are ever serviceable to the health of man. And this question is answered emphatically in the negative. The conclusion is based on the experience of teetotalers, the result of Dr. Parkes' experiments with soldiers, the greater length of life and freedom from sickness of abstainers, as attested by the statistics of insurance companies and friendly societies, &c. In addition to these proofs, the following interesting experiment of Professor Demme's is reported:—"Several healthy children between ten and fifteen were treated during a period of several months, extending over a cold as well as a warm season, alternately on a total abstinence regime, and, again, with very moderate doses of wine (one-third of a glass of light wine, mixed with water, at dinner and supper for the younger children, and half a glass for the older). The constant result was that the children were more drowsy, more nervous, less attentive, and less capable of school work, during the periods when they had wine, than in those of total abstinence from alcohol." The professor very briefly touches upon the physiological explanation of the apparently beneficial action of alcohol, much in the way in which Professor Bunge, of Basle, had previously handled the subject. In reply to the allegation that, under the pressure of modern civilisation, stimulants are necessary, and that teetotalers are peculiarly liable to fall victims to other narcotics, Dr. Forel denies alike the necessity and the liability: "On the contrary, the use of one stimulant leads to that of another. Alcohol and tobacco are constantly associated. Attempts have been made to cure the votaries of morphia by replacing the drug with cocaine, &c.; almost invariably with the result that the victim acquires a new craving without losing the old one."

We have known a good many English and American teetotalers who

have allowed themselves to be persuaded, when travelling on the Continent, that the unwholesomeness of the water rendered it absolutely necessary to relax the rule of abstinence, and to drink the light wine or beer so constantly pressed upon them. Our own experience has been so entirely contrary to this notion, that we have read with peculiar satisfaction Dr. Forel's expression of opinion as follows:—"Even in countries where water is worst, it can always be made wholesome by boiling, and pleasant to the taste by the addition of a little tea or syrup. In the tropics especially, bad as the water is, all energetic explorers and travellers agree that alcoholic drinks are highly dangerous, and ought to be entirely avoided. The same testimony is borne by explorers in the Polar regions, and those who make the ascent of lofty and dangerous mountains." The mischievous results of moderate drinking are next dwelt upon, and the great dangers arising from the mighty pecuniary interests connected with the drink traffic. Dr. Forel protests vigorously against the idea that a State monopoly of the manufacture and sale of drink would remedy the evils of the present system, and declares that our aim must not be to put any kind of alcoholic liquor under the protection of a monopoly, but gradually to get rid of them all. He sees clearly that all measures merely directed against excess have ever proved fruitless, while the total abstinence and prohibition movements, wherever they have prevailed, have been eminently beneficial.

Our space will not allow us to quote from the deeply instructive but terrible portion of the address which deals with the physical and moral results of intemperance, not only to the drinkers themselves, but to their descendants; nor yet to make extracts, as we would gladly have done, from the concluding appeal, especially suited to a student audience, to rise superior to low and sensual gratifications, and to cultivate a spirit of self-sacrifice for the good of others, of high moral principle, of purity and love.—F. THORP.



## DR. PEARCE GOULD ON MODERATE DRINKING.

At the recent annual meeting of the Baptist Total Abstinence Association, held at the Metropolitan Tabernacle, Dr. A. PEARCE GOULD said:—

When I was asked to come here to-night, I felt that, not only as a total abstainer was this request made to me with some claim for acceptance, but that after more than twenty years' experience, most of it obtained in two or three of the leading Metropolitan Hospitals—experience which brought me daily into the closest contact with many of the evils that this drink traffic works—this laid a very heavy responsibility indeed upon me to accept it. There is no cause of disease, injury, and death, as we meet these in London to-day, so potent, so universal, so frightful as alcohol. Statistics give you but little insight into the evil that drunkenness is working; but if you could come with me from bed to bed in a hospital ward, and find man after man brought in from the same evil cause, if you could be with me in my out-patients' room, and find man after man, and woman after woman, coming in and bearing marks of the same cause on his and her face, then you would get some insight into the terrible physical evils wrought by drink. But all are agreed upon that, and there is no question in any intelligent man's mind as to the evils of excessive drinking; but let me say this, that there is another fact that impresses one more and more the longer he lives, and that is the physical evils of drink are not reaped only by those that drink to drunkenness. Moderate drinkers have to pay physically for their share in the terrible drink. What is moderate drinking? I do not believe very much in definitions; but sometimes children tell us exceeding wise truths, and I heard a little boy the other day who had been listening to some talk at home about moderate drinking, give a very good definition of it. "What is moderate drinking, mother?" he said. His mother could not make it very plain to him, so he said in his own way, "I suppose it is drinking when you like."

Be sure of this, that from a doctor's point of view, drinking as an evil does not only mean drinking to intoxication. I wish that I could bring before you, as I ought to do, what I see so frequently, and what I know exists so widely, viz., the terrible mischief that is wrought by so-called moderate drinking, which leaves little traces of inebriation. Most of the cases of dyspepsia that are met with now are to be traced to drink. Very many nervous diseases are traced to the same cause, and this not only in the case of immoderate drinkers. But I want to tell you this one other thing about this moderate drinking, a fact which has impressed me very much. Of course I am brought sometimes into contact with pitiable circumstances—men brought down by terrible physical suffering, distracted by still worse anxiety, or almost crushed by terrible sorrow. Why, of course, the very indulgence in alcohol totally unfits anyone to bear such burdens as these. The most moderate indulgence in liquor in no way lightens the burden of trouble, in no way increases the strength of the individual to bear it. If only people knew how much they add to the cares and anxieties and troubles of life by moderate drinking, I cannot but think it would soon be driven out of the country altogether. How is it that this terrible drink traffic goes on almost unabated? That is a difficult question to answer in full; but I am sure of two things about it. One is the awful numbing fact of familiarity. I know that it more than all requires the keenest watching of one's mind and heart not to get terribly hardened to the sight of broken leg after broken leg on the Saturday night, due to the same cause—drink. Then there is the terrible enslavement of custom. We may talk about it, we may laugh about it, but it is a terrible reality. We talk about the Chinese people suffering great pain simply to produce a useless foot, and we talk about the Fakirs of India and their harmful customs, and then we mention our superiority! But it is all



custom, and custom is hanging about our necks in England, a curse that "equals that of war, of pestilence, of famine, combined."

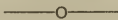
But if medical practice has taught me the evil in any measure attending the drinking customs of this country, what has it taught me about teetotalism? It has taught me this, that the most perfect health, whether of mind or body is usually compatible with total abstinence. It has taught me this, that neither sex, age, habit, employment, nor clime, disqualifies its advantages. It has taught me this, that those who have been longest under the influence of the drinking customs of the country most need it and get most good from it. It has taught me this, that its sudden and abrupt commencement is never dangerous, never harmful, and the mere fact that the individual has for long imbibed alcohol, and so got accustomed to it, is the strongest and best reason for giving it up at once and for ever. In every town in England, teetotalers are doing the hardest work, regular at their employment on the Monday morning, never shirking it as the days go on. There are workers with their heads and with their hands. Who are the men who are doing their utmost to promote social and religious reforms in this country? Why, in nine cases out of ten teetotalers. It is too late to tell us that teetotalism is a failure. But you and I have met people who have expressed their sympathy with the temperance movement, people who tell us that they, if they could, would be, teetotalers, but that they have tried it, and have found that alter a time it was necessary for them to take just a little, and then they usually quote Paul's advice to Timothy, the only part of Paul's letters they ever realise as having any application to themselves. Do not believe the less in teetotalism, because there are many weak people in the world who say they sympathise with it but cannot practise it. But you will say to me, "What has the medical profession being doing with regard to Temperance these twenty years that you have been a

member of it? Is their practice and teaching the same to-day as when you began walking a London hospital?" Well, I will tell you one or two things which will carry home to you, I trust, their own lessons.

When I entered a London hospital twenty-three years ago, in that hospital, and generally throughout the country, the ordinary diet of a hospital patient, that is to say, anyone recovering from illness, and regaining a fair measure of health, every day contained beer or porter. To-day I doubt if there is a single hospital in this country where the ordinary diet contains a drop of beer or porter. I doubt if there is a single hospital in which *any* diet contains a drop of beer or porter, wine or spirit. Now what does that mean? Why, it is the profession saying to their patients, "Alcohol finds no place in diet at all, whether for health or disease." When you hear people saying that the medical profession has not moved, and has done nothing in this cause, do bear that fact in mind. But there is another thing. When I was first house surgeon and house physician in a London hospital there was hardly a case of anyone suffering from terrible disease, such as you meet with in a London hospital, in which wine or spirits were not used. What is the fact to-day? In the hospitals with which I am acquainted patient after patient comes and goes without one drop of wine or spirit being given from beginning to end of the treatment. I have no doubt that I am addressing some temperance workers to-night who have had great anxiety about people who have for long years given way very freely indeed to indulgence in drink, people who have become worn and wasted in frame and in heart, and whose souls have sunk to the lowest depths. The temptation is strong. You have all felt it, and you are apt to say, "It is hopeless! It is hopeless! The craving is too strong even to be overcome, and the physical evil wrought is so great that it is no use striving to light the remaining path of these poor creatures. Some will say, "Do not stop the habit now; it is too late." My

friends, remember this, that from a medical man's point of view not one of those cases is hopeless. There is no disease which responds in such a marvellous way to the removal of its cause, though late in its progress, as the disease produced by drink. I do not care what the case may be, what part of the organism may be diseased, if only you can get the individual to absolutely abstain at once from liquor, improvement is practically certain to result. I do not say that a "hob-nail" liver will be made a new

one; I do not say that a worn-out system will become new; but I do say this, that a new lease of life will be granted, and more good than you estimate will follow your endeavour. But it must be teetotalism—nothing less, nothing more; and the remedy must be applied by teetotalers. I will tell you why. Only teetotalers have a remedy sufficient to deal with this question, which is a new illustration of our Master's words, "This kind cometh not forth but by prayer and fasting."



## DRINK AND THE DEATH-RATE.

By DR. JOHN MOIR.

EVERY now and again a paragraph containing statistics compiled by an Investigation Committee of the British Medical Association goes the round of the papers, purporting to show that those who drink no alcohol whatever reach the shortest age, and that next to them come the drunkards.

The number of deaths on which the statistics are based is 4,234, and the number of medical men reporting these cases is 178. As the number of deaths of teetotalers altogether is only 122 out of the 4,234, it follows that the 178 reporters must have had less than one death each amongst the total abstaining section, and that some of them could have had none at all. The mere statement of this fact ought to be sufficient in the mind of every candid man to prove that it is impossible to deduce any argument against total abstinence from these figures. But this is not all, though it is sufficient; for the tables show under the five sections into which they are divided that the average life of the total abstainer is 51 years 22 days; of the decidedly intemperate, 53 years 3 days; of the free drinkers, 57 years 50 days; of the careless drinkers, 59 years 7 days; and of the habitually temperate, 63 years 15 days.

It will be seen from the tables themselves, then, that, excluding for the moment the 122 total abstainers, a perfectly normal course is pursued—that is to say, that in the four classes of drinkers, those who drink the most

die soonest, and those who drink the least live the longest, in regular gradation, and without any variation. But, on coming to the 122 teetotalers, we find a perfectly abnormal and irregular phenomenon—namely, that whilst the tables show a regular gain to life in each grade for smaller and smaller quantities of alcohol being taken, when we come to none at all the death-rate is the worst, worse even than that of the habitual drunkard. And here comes in the viciousness of the newspaper reports. They give the tables of the Investigation Committee without the explanation of them by the same Committee—a perfectly unjustifiable expedient, done with the sole intention of deceiving.

Apart from the fact already pointed out that the numbers of total abstainers given, 122 by 178 reporters, are too small to base statistics upon, and that the age of teetotalers is less than the average age of the general community, total abstinence being almost practically unknown until within the last fifty years, so that most of those practising it are still living, and what their average at death will be cannot therefore yet be accurately calculated, we have this startling fact, that the newspaper record ends with the statistics, and wilfully, maliciously, and falsely, suppresses the report of the Committee upon the bearing and value of those statistics.

For instance, the newspapers, as I have pointed out, do not say, as the

Investigation Committee did, and as its reporter, Dr. E. Isambard Owen, himself an abstainer, has constantly written to paper after paper to say, that only 122 cases of total abstinence were reported upon out of a total number of 4,234, an entirely inadequate number; and that furthermore no record whatever of their life-history is given, either as to length of total abstinence, whether with constitutions previously ruined by drink, or, why they should not, the number given being so small, be reckoned amongst the habitually temperate, if the only disease they suffered from was total abstinence!

Dr. Owen and the Investigation Committee, however, state (the statement being absolutely suppressed by every newspaper commenting on the fallacious and untrustworthy data), that "no conclusion unfavourable to teetotalism could be drawn from these statistics," and that "we have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually sober drinkers of alcoholic liquors." But from the tables themselves it is evident that the habitually sober have the best of it. The startling statistics, then, are worthless, and ought never to have been published, as Dr. Owen himself admits. But common-sense, the statistics of longevity published by Sir George Humphry, Professor of Anatomy in Cambridge University, of the Registrar-General, Drs. Guy, Farr, Ogle, and others, with the records of the great life insurance offices, such as the Scottish Amicable, Sceptre, Whittington, Gresham, &c., and of the great benefit societies, prove that the mortality in the total abstaining members is just half of what occurs in the non-abstaining.

The reports of the Registrar-General for 1885 and subsequent years show that the death-rate of persons engaged in the retail liquor trade is four times as high as that of ministers, priests, and clergymen of the same ages, and that agrees with my experience. Mr. Thomas Wallace, F.S.A., in a paper read in Edinburgh to the Actuarial Society, in 1888, states that the mortality per 1,000 of licensed grocers is

18·9; of hotel keepers, 26·8; and of publicans, 33·4; whilst the average for Englishmen generally is 10·12 per 1,000. For complete information on this question everyone should read James Whyte's paper, "Does the use of Alcohol Shorten Life?" published at the Temperance Depôt, 33, Paternoster Row, E.C. Price 2d.

The Rev. Thomas Snow, whose brother was one of the most distinguished medical men in England, and became one of a band of medical abstainers in London in 1836-37, has collected the ages of 2,211 total abstainers now living, from the age of forty years and upwards, and he finds that nearly one-third of the whole, or 731 out of 2,211, are seventy years of age and upwards. The ages are as follows:—

90 years and over	...	8
80 to 90 years	...	135
70 to 80 "	...	588
60 to 70 "	...	594
50 to 60 "	...	446
40 to 50 "	...	440

The average age is 61·46 years, the oldest being 95 and the youngest 40; 729 are life abstainers, their average age being 49·14; the average age when these life abstainers are deducted is 67·53 years, and the average duration of their teetotalism is 20·54 years. Fifteen of the life abstainers are seventy years old or more, three being over 80, and one of them 88, the last four all hail from Scotland.

When we put these 2,211 living teetotalers, with an average age of 61·46 years, and still growing, against the 122 dead teetotalers of the "startling statistics" report so gloated over by the enemies of total abstinence, there is nothing more to be said. The false report is on a par with the statement that teetotalism will reduce wages, the truth being that one of the chief causes of low wages is drink, and that total abstinence, instead of reducing their wages, will enormously enlarge their wants and demands, and instead of a cellar and a broken chair, they will want and will have a decently-furnished house, in which to enjoy their increase in length of days, happiness, and comfort.—*Workers' Cry*, May 30.



## MARRIAGE WITH INEBRIATES.

By T. D. CROTHERS, M.D., *Editor of the American Journal of Inebriety.*

To the specialist who makes a study of inebriety, nothing can be more unpleasant than to advise in relation to marriage with these drink victims. Very often the advice of the physician is final, both parties agreeing to abide by his decision, and in most cases both parties blame him, either openly or in secret, and suppose a different result would have followed from different advice. Two parents of much wealth and good position in society consulted me as to the marriage of an only son to an only daughter. The son being a genteel, periodical drinker, the parents of the daughter hesitated. A family physician urged the marriage as a means of saving the young man. Both parties appealed to me, and my decision was adverse. The young lady married a poor clergyman, and was early left a widow in feeble health. The young man drank to great excess and died by his own hands. Both parents are firm in the conviction that my counsel was in error.

Appeals are constantly coming to me from ladies who are engaged to drinking men: from mothers and fathers of such daughters, asking advice, giving histories of talented, brilliant inebriates, who have every qualification to make a home, except this tendency to use spirits to excess. Not unfrequently clergymen and physicians urge such marriages, and my opinions are condemned as unreasonable, but most unfortunately for the parties, the result of the experiment is a sad confirmation of what should have been realised at first. I do not hesitate to advise most emphatically against all marriages with inebriates, or even moderate, or occasional excessive users of spirits. The reasons for this position may be grouped as follows:—

1. A moderate and an occasional excessive user of spirits is like a person who has a hacking cough and occasional night sweats, or a slight hæmorrhage. He may recover and never have consumption, yet there

can be no doubt that he has a strong tendency, and is threatened with consumption. There is every reason to believe that some time in the future he will die of this disease. In the same way the moderate user of spirits may never be any worse, but there is a strong tendency, and stronger probability that in certain conditions and surroundings (that cannot be foreseen), he will become an inebriate. All experience proves that the persons who use spirits in so-called moderation, and do not become inebriates, are so from accidental circumstances and conditions, beyond any will power to shape or determine. The reason is beyond their control or knowledge, and they are the few exceptions which only prove the rule. All such cases have the early symptoms of a grave and fatal disease, and no human foresight can determine what the future will be. It is certain that no marriage association, no sentiment of love or duty, can be depended upon as a remedy.

2. Persons who have been, or are periodical drinkers, and who promise to reform or stop drinking at marriage. Such persons are always defective, especially in the higher brain centres. The highest faculties of the brain, conscientiousness, sense of duty and right and wrong and moral obligations, are dulled and more or less palsied. Alcohol, of all other drugs, attacks the highest and last-formed powers of the brain, breaking down and dissolving from the very pinnacle of life. This failure of the higher brain powers is apparent when the man is under the influence of spirits, but is covered up when sober and concealed, yet exists just the same. The brute when drunk may seem like an angel when sober, yet the brute qualities are all there, and may come out any time from the application of the proper forces. The angel nature is only the character of what he could or should be, and every drink excess develops the brute, and destroys the angel. The man who has been intoxicated has more or less permanently

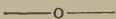


injured the best powers of his brain, and his future is unknown to himself, and cannot be determined by others. To marry such a man, and expect him to be cured by this means, is as irrational as to hope that a broken bone or diseased lung can become healed by this method. Confirmed inebriates have married, and continued temperate ever after, but there are no reasons for supposing that marriage was the cause or means of this reformation, and what conditions of life would end in this way. While the inebriate may never drink from the time of marriage, he will always be a weak, broken-down man. His brain and nervous system can never act along healthy ranges of life.

3. There is no fact more certain than that the weakness and disease of the parents will go down to the next generation. The sin of bringing into the world diseased and defective children is almost unpardonable, and the sin of marrying an inebriate and having descendants tainted, and switched off on to the side track of ruin and dissolution, is literally a crime that can never be atoned for. My advice is always, Never marry an inebriate or moderate drinker of spirits. If the man is anxious to show his strength,

let him remain six or eight years temperate, before he is encouraged to enter upon such a state. Let him prove with all reasonable certainty that he is restored and will not again suffer from drink excess. A most excellent temperance reformer, who prays and works for the coming of a better, purer age, celebrated with great joy the marriage of his daughter to a periodical inebriate whose history and heredity showed that the race he sprang from was nearly extinct. The man still drinks, and three little children have come into the world to swell the ranks of defects and incapables, to add to the misery and sorrow the grandfather so earnestly prays to have diminished.

The regulation of marriage between inebriates and insane is of far more practical value to the world than all the legislation on divorces. If temperance people would exercise common sense here, many a dark fireside would be prevented and many a tide of misery would be checked. The noble army of women that endure the tortures of martyrdom in their vain efforts to help the inebriate, would be halted, and the "golden age" appear nearer to us, as the march of humanity goes on higher.



## THE TENDENCY TO SELF-INDULGENCE.

WHAT with the recent debate upon opium, the letters upon ether drinking in Ireland, the investigations of the Select Committee on British and Foreign Spirits, and the serious and elaborate, though probably fallacious, calculations of the number of pipes smoked in excess of previous years, attention is at the present time being very vigorously directed to the increase in the forms, and possibly also in the amount, of self-indulgence. The habit of self-indulgence is deemed to be detrimental to the individual, and therefore to the State; and it is being pursued and exposed to abuse, to censure, and, if practicable, to legislation. The instinct is more widespread than the above enumeration indicates. Most new remedies pass

through a perilous stage, in which their capabilities of furnishing new forms of self-indulgence are tested; the sway of opium and morphine, although they cannot yet be said to have had their day, has been successively threatened by chloral, by cocaine, by antipyrin, and more recently by the newer hypnotics. Many regard with anxiety the consumption of absinthe in France, of ether in certain parts of Ireland, of opium in China and Burmah, and of alcohol in parts of the globe too universal to specify; if some of the substances mentioned create less alarm, it is probable that the cause is to be sought in the relative infrequency and secrecy of their employment.

A correspondent from Bombay

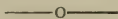
wishes us to invite a general discussion from medical experts as to the "proper scope of the medicinal value of alcohol," and he formulates a series of questions for consideration. Many of these questions, if devoid of any particular novelty, are sufficiently suggestive. Thus, for example, no medical man would feel any difficulty in answering the following: "Is it advisable to recommend the use of alcohol without restriction, or is it necessary to restrict its use like that of other medicinal agents, boldly prohibiting it in certain cases, and giving clear directions as to dose and mode of administration?" But the writer's probable views may be gathered from the wording of another question; "Is the regular daily use of alcohol, in doses generally supposed to be moderate, beneficial or baneful *upon the whole*?" And in his final question he leaves no shadow or doubt about the matter: "Are not the doctors who unnecessarily and unreservedly recommend moderate drinking morally responsible for the ultimate outcome of such recommendation, since they are expected to know something about the frailties of human nature on the one hand and the charms of alcohol on the other?" This indeed lays a heavy charge at our doors, but the subject is scarcely so simple as it would appear. The reference to the frailties of human nature and to the charms of alcohol is not convincing, and the question of self-indulgence in any form must be argued equally with that of alcoholism. Granted that of all forms of preventible disease none are so sad as those which result from self-indulgence, yet it must equally be granted that the downward progress is gradual, and that it must have had a definite starting-point. This our correspondent would, in many cases, assign to some careless medical advice, but this is certainly not true for the vast majority. The relief of pain, physical or mental, has often been urged as the determining cause, but this is the extenuating circumstance put forward as an excuse by the habitual drunkard; surely during the time that the seeds of the habit of self-indulgence are sown,

during the youth of the individual, he is rarely so sadly situated with regard to pain, physical or mental. The gratification of the sense of taste is still fallacious during the early stages. The taste may be acquired and cultivated, but probably the starting-point for nearly all forms of self-indulgence is a spirit of bravado. The process by which the taste is acquired is frequently painful, as witness the common experience with tobacco, or the effect of the first mouthful of raw spirit; still from a desire for emancipation these discomforts are braved, often in spite of warning of the dangers of thralldom, but with youthful trust in strength of will to resist. Most forms of self-indulgence involve questions of habit, of lack of self-control fostered by habit, of example of an undesirable nature, and often too they appear largely to be the result of simple drifting from carelessness. Charity looks for reason or explanation in vain; the truth is that the tendency to self-indulgence, regardless of consequence, is one of the weaknesses inseparable from humanity.

Recognising this tendency as one of the frailties of human nature, is the attitude of the medical profession towards forms of self-indulgence at all ambiguous? In spite of all denunciations of the excessive use of alcohol and of the misuse of drugs, grave accusations are still made, which we are invited to discuss. All broad charges require to be reduced to specific issues before they can be met with any chance of success. To accuse the medical profession of favouring habits of intemperance, directly or indirectly, is too serious a matter to be lightly disregarded. Perhaps occasionally, rarely, a misunderstood piece of advice may be alleged to have led to habits of intemperance, but on inquiry the truth usually appears to be that the individual sufferer possesses an unenviable personal or inherited alcoholic history. On the other hand, there can be very little doubt that the members of the medical profession incur great responsibility for many of the forms of self-indulgence characterised by the perverted

employment of drugs, and it is difficult to see how this responsibility is to be avoided under the present conditions of practice and of public interest in medical matters. The general practitioner who dispenses his own medicines sends a sleeping draught, and declares or conceals its active ingre-

dient according to his knowledge of the patient; but when a prescription is given, especially when given by a consultant, with little probability of being able to follow out its subsequent history, the remedy is in the hand of the patient to use or abuse at pleasure. —*Lancet*, May 2.



## AMERICAN MEDICAL TEMPERANCE ASSOCIATION.

At the close of the recent meeting of the American Medical Association, in Washington, on the 8th May, an Association was organised for the promotion of temperance, to be known as the American Medical Temperance Association. With great fitness Dr. N. S. Davis, of Chicago, was chosen President. Dr. F. E. Joakum, Shreveport, La.; Dr. Jonathan Taft, Cincinnati, O.; and Dr. Joseph B. Whiting, Janesville, Wis., were made Vice-Presidents, and Dr. Crothers, of Hartford, Conn., Secretary.

The committee appointed to draft a constitution and by-laws submitted its report, which was unanimously adopted.

The objects of the Association are to advance the practice of total abstinence in and through the medical profession, and to promote investigation as to the action of alcohol in health and disease. It aims at being a bond of union among medical abstiners scattered all over the country. It admits as members regular medical practitioners who are practical abstiners from all alcoholic liquors as beverages. Members are not required to sign any pledge, and if such for any reason cease to be total abstiners, it is expected that notice of withdrawal from the Association will be sent to the secretary. The liberty of members in prescribing alcohol as a medicine is entirely uncontrolled.

A membership fee of one dollar was agreed upon. All questions involving personal character and eligibility to membership are to be referred to the judicial council.

In his remarks to the Association Dr. Davis, says the *Washington Post*,

asked each member to appoint himself as a committee to disseminate the doctrine of the society at all the State meetings. He hoped the time would come—though perhaps not in his day—when the American Medical Temperance Association would have a great influence for good. The members of the profession were gradually being educated up to the value, or, more properly speaking, the non-value, of the use of alcohol in their practice. He cited many cases in his own practice and when he had been called into consultation where great benefits were seen immediately upon the removal of all alcoholic stimulant from the sick-room. “Until the medical world understands the difference between an anæsthetic that paralyzes and a tonic that supports,” said Dr. Davis, “men and women will die who ought not to die, and would not with proper treatment.”

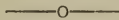
The charter members of this organization are as follows:—

N. S. Davis, M.D., George W. Webster, H. M. Starky, M.D., M. M. Leahy, M.D., Chicago; W. K. Sloan, M.D., Moline, Ill.; Isaac Quinby, M.D., Jersey City, N.J.; E. H. Heise, M.D., Canton, Ill.; W. S. Holliday, M.D., Monmouth, Ill.; W. W. Pennell, M.D., Fredericktown, O.; Elisha Chenery, M.D., Boston; Wesley Davis, M.D., Worcester, Mass.; J. T. Reeve, M.D., Appleton, Wis.; Thomas McCoy, M.D., Laurens, S. C.; F. E. Joakum, M.D., Shreveport, La.; J. E. Purvis, M.D., H. N. Porter, M.D., Washington, D. C.; A. S. Barnes, M.D., St. Louis, Mo.; N. Roe Bradner, M.D., Philadelphia; C. R. Reed, M.D., Middleport, O.; W. F. Luckett,

M.D., Washington; J. P. C. Walker, M.D., Dyersburg, Tenn.; W. S. Hall, M.D., Haverford College, Phila.; G. B. Gillespie, M.D., Covington, Tenn.; Hiram Corson, M.D., Plymouth, Pa.; T. D. Crothers, M.D.; Hartford, Conn.; Jos. B. Whiting, M.D., Henry Palmer, M.D., Janesville, Wis.; Chas. H. Shepherd, M.D., Brooklyn, N. Y.; Willis Cummings, M.D., Bridgeport, Conn.; Jonathan Morris, M.D., Iron-  
ton, O.; Samuel M. Abbott, M.D., Boston; John H. Clark, M.D., Mechanicsburg, O.; C. G. Bacon, M.D., Fulton, N.Y.; A. T. Conley, M.D., Cannon Falls, Minn.; R. F. Henry, M.D., Painesville, Ill.; A. K. Bond, M.D., Baltimore; J. J. Adams, M.D., Chicago; Ephraim Cutter, M.D., New

York; Frederick Horne, M.D., Marshall, Va.; A. P. Masterfield, M.D., Paducah, Ky.; C. J. March, M.D., Fort Rodgers, Ark.; D. S. Laush, M.D., Washington; G. G. Brown, M.D., New Market, Minn.; Henry O. Marcy, M.D., Boston; U. W. Leighton, M.D., Brooklyn; Thomas C. Smith, M.D., Washington; Seraph Frissell, M.D., South Hadley, Mass.; W. T. Bishop, M.D., Harrisburg, Pa.; Jonathan Taft, M.D., and T. V. Fitzpatrick, M.D., Cincinnati, O.; E. D. Laughlin, M.D., Mitchell, Ind.; J. E. Dexter, M.D., Washington, and C. H. Hughes, St. Louis.

Detroit was selected as the next place of meeting during the week of the American Medical Association.



#### HOME FOR INEBRIATES' ASSOCIATION.

THE reports of this Association for the year ending 31st January, 1891, show that the number of admissions to the Dalrymple Home during the year was forty-one, being eight more than in any preceding year, and the progress of the patients has been most satisfactory. Particulars are given respecting the 224 patients who have been discharged since the opening of the Home. Although the patients had indulged to "excess," on an average, for nine years prior to admission, no less than 42 per cent. are known to have done well; while, if those who have died, become insane, or have not been heard from, be deducted, the proportion has been almost 53 per cent. Of the 224 patients, 100 were received under the Inebriates Acts, and 124 as private patients. Nearly all the patients had received a good education, and under the head of "Occupation" it is stated that fifty-seven were gentlemen of no occupation, twenty-four were merchants, twenty clerks, fifteen medical practitioners, eleven retired military officers, nine solicitors, nine civil servants, seven manufacturers, six tutors, six clerks in Holy Orders, five marine merchant service, four students of medicine, four engineers, four farmers, four commer-

cial travellers, four chemists, three land and commission agents, three barristers-at-law; two professors of music, accountants, stockbrokers, underwriters, distillers, drapers, agents, architects; and one each of the following: retired naval officer, artist, publisher, auctioneer, librarian, builder, shop-fitter, banker, engraver, dentist, tailor, journalist, naturalist.

The medical superintendent, Mr. Branthwaite, says:—"In many instances the complete recovery (even under such favourable circumstances) of patients physically and mentally debilitated to an almost extreme limit, has been most interesting and sometimes marvellous. Two cases of morphine and cocaine inebriety have come under my notice. One, who had previously been seven times under treatment in other homes, was cured of his habit by a ten days' reduction, but I hear has returned to the habit after about four months' abstinence. The other had been injecting from forty to sixty grains of each drug daily, but had reduced himself to twenty or thirty grains before entering. Reduction in this case to total cessation occupied a period of about six weeks, and has been attended with a very good result. The patient is now occupying a re-



sponsible position, and is in excellent health.

The committee "congratulate the friends of the Dalrymple Home on the substantial pecuniary loss incurred

during 1889-90 having been more than recouped by the profit which has been made during the year which has just expired."

ALCOHOL AND LONGEVITY.

In a letter to the *British Medical Journal* (June 13) Dr. J. J. Ridge, Honorary Secretary British Medical Temperance Association, says:—

SIR,—The annual report of the United Kingdom Temperance and General Provident Institution, in which the expected and actual claims for the year 1890 are given, affords another opportunity of testing the comparative longevity and vitality of total abstainers and drinkers of alcoholic liquors. The weight and conclusiveness of this test increase with every year. The twenty-fifth return is as follows:—

Expected Actual  
Claims. Claims.

Temperance section... 314 ... 225  
General section ... 382 ... 389

This shows 71·6 per cent. in the Temperance section, and 100·2 per cent. in the General—a difference of 28·6 per cent. in favour of the abstainers. This is a little higher than the averages of the whole twenty-five years, which are 69·9 and 96·6 per cent. respectively—a difference of 26·9 per cent.

The advantages of total abstinence is shown by the following five quinquennial returns:—

			Temperance Section.		General Section.	
			Expected Claims.	Actual Claims.	Expected Claims.	Actual Claims.
1866-70	...	...	549	374	1,008	944
1871-75	...	...	793	511	1,267	1,330
1876-80	...	...	933	651	1,485	1,480
1881-85	...	...	1,179	835	1,670	1,530
1886-90	...	...	1,472	1,015	1,846	1,750
			4,856	3,386	7,276	7,034

This shows that while in the General section the deaths have fallen short of the expected number by 242, in the Temperance section the deaths are 1,470 fewer. The fact that in the General section the deaths are below the healthy male average proves conclusively that the difference between the two sections is not due to excessive drinking on the part of any con-

siderable number of the General section. The comparison, therefore, is fairly between abstainers and moderate drinkers, rather more moderate than the average middle-class picked lives, and shows conclusively that the use of alcoholic liquors accelerates the degeneration of the tissues and shortens life.

MANUFACTURED WINES AND BRANDY SUBSTITUTES.

(From the *British Medical Journal*.)

J. S. asks:—1. Are manufactured brandies and wines equal medicinally to the genuine articles distilled from wine or fermented naturally?

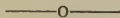
2. Is the use of pure ethylic alcohol—as sp. vin. rectific.—equal as a stimulant to brandy or whisky?

1. This question is very general, as

"manufactured wines" include a very wide range of quality. Assuming that the commoner kinds are meant, it may be said that "manufactured brandies and wines" are not "equal medicinally to the genuine articles." They usually contain about the same amount of alcohol, but want the delicate flavour of the natural product, and are usually overloaded with sugar and other flavouring substances, which render them more apt to disturb digestion and disagree. It is notorious that over-indulgence, or even moderate indulgence, in such manufactured liquors, is followed by much more unpleasant results, as regards both the digestive and nervous systems, than if good sound wine or

spirits have been taken. The quality and degree of harmfulness of manufactured liquors vary very greatly.

2. Pure ethylic alcohol (diluted) is without doubt a powerful stimulant to the circulatory system, and is not infrequently used as a substitute for brandy, whisky, &c., under the idea that the patient will not readily acquire a taste for it. Probably, however, owing to the absence of ethers, which exercise a powerful effect on the blood-vessels, pure ethylic alcohol is not quite so good a stimulant as the spirituous liquors in common use. No exact observations on the subject are available.



#### SOCIETY FOR THE STUDY OF INEBRIETY.

THE annual meeting of the Society for the Study of Inebriety was held in the rooms of the Medical Society of London, on Tuesday, the 7th April. In his annual address the President, Dr. Norman Kerr, commented at length on several recent criminal and civil trials, in which intoxication had played a part, and concluded by submitting the following practical proposals:—

I. In all criminal trials in which the alleged criminal act has been committed by the accused when under the influence of liquor, or has been committed by an inebriate, there should be an investigation into the previous medical history of the prisoner. There should also be an inquiry into the family history, so as to elucidate the heredity with especial reference to inebriety, insanity and other neurotic affections, syphilis and gout. This two-fold inquiry should be entrusted either to a medical expert, or to a mixed committee composed of a legal and medical expert acting conjointly. The object of this investigation is to ascertain how far the accused has been cognisant of his

alleged criminal offence, and as to whether, if so cognisant and so competent, he was able to resist the criminal impulse. Such an expert inquiry should be provided for the accused, whatever their circumstances, as a judicial provision to ensure a fair and just trial.

II. The appointment of a mixed commission of judges, counsel, solicitors, and medical experts, for the consideration of the question of dealing with inebriates who have been convicted of a criminal offence. This inquiry should have special reference to the best procedure to be pursued, whether (1) if penal, by cumulative punishment or otherwise; or (2) if curative, by medical treatment for a diseased condition, with due provision for classification, occupation, hygienic measures, and elevating influences.

In the discussion that followed, the President's proposals were cordially approved of. Surgeon-Major Pringle, Dr. Arthur Jameson, Dr. Heywood Smith, Dr. F. R. Lees, Dr. Lord, Dr. George Eastes, Mr. T. Gandy, and Mr. John Hilton, took part in the proceedings.

# British Medical Temperance Association.

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*President.*

Dr. B. W. RICHARDSON, F.R.S.

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## CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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## ENGLISH BRANCH.

*Honorary Secretary.*

Dr. J. J. RIDGE, Enfield, Middlesex.

## NEW MEMBERS.

J. H. ALLINGHAM, Esq., Sutton.

Dr. GUILLEMARD, Southsea.

D. R. POWELL EVANS, Esq., Hoxton, N.

Dr. PRANKERD, Highbury Hill, N.

Dr. WHITE, Bexhill.

## NEW ASSOCIATES.

Mr. H. W. CLARKE, St. Mary's Hospital.

Mr. A. E. COUZENS, St. Mary's Hospital.

Mr. R. B. DUNCAN, St. Mary's Hospital.

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## SCOTTISH BRANCH.

### NEW MEMBERS.

Rev. W. HUSBAND, L.R.C.P. and S.  
Edin., Ajinere.

Dr. G. P. SMITH, Edinburgh.

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## IRISH (CENTRAL) BRANCH.

### NEW ASSOCIATES.

Mr. HARRISON, Dublin.

Mr. LYDEN, Dublin.

Mr. SCOTT, Dublin.

Mr. THOMPSON, Dublin.

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## BOURNEMOUTH MEETING OF THE BRITISH MEDICAL ASSOCIATION.

It has been suggested that members of the B. M. T. A. who may be present at the above meeting would like an opportunity of meeting together. Arrangements will be made for such a meeting on Thursday, July 30th (tea and coffee at 5.30 p.m., tickets one shilling), provided at least twelve members intimate their intention of being present to the Hon. Sec., Carlton House, Enfield, not later than Saturday July 18th.

J. J. RIDGE, M.D., *Honorary Secretary.*

## THE ANNUAL MEETING.

THE fifteenth annual meeting of the British Medical Temperance Association was held on Friday, May 29, in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, London. The president, Dr. B. W. Richardson, presided.

Dr. J. J. RIDGE, Honorary Secretary, read the Annual Report for 1890-1, as follows:

In presenting the fifteenth annual Report, your Council are not able to announce the increase of numbers

which has characterised previous years.

There have joined during the year twenty-one new Members, of whom seventeen joined the English Branch, two the Scottish, and two the Irish; and eleven Associates (medical students), five in England, two in Scotland, and four in Ireland. But through the deaths of some members and the removal or resignation of others the numbers now stand as follows:—

	MEMBERS.	ASSOCIATES.
England and Wales ... ..	253	32
Scotland ... ..	51	39
Ireland (Central) ... ..	40	47
Ireland (North) ... ..	40	—
Abroad ... ..	13	—
	<hr/> 397	<hr/> 118

These numbers, though slightly smaller than last year, bear witness to a strong feeling on the part of an influential section of the medical profession of the evil of alcohol-drinking. There are many other total abstainers not yet enrolled, and your Council would earnestly ask every member to endeavour to enlist medical abstainers with whom they may be acquainted. A resolute effort might be of incalculable benefit to the Association, the profession, and the public.

Among the members who have died during the year, special mention should be made of Dr. Armitage, formerly a member of the Council, whose philanthropic efforts on behalf of the blind are so well known; and of Dr. Menzies, of Edinburgh, one of the oldest medical abstainers.

Your Council regret that, owing to the average smallness of the subscriptions, the great majority only subscribing five shillings (of which two

are returned in the value of the quarterly *Journal*, leaving only three shillings for working purposes) they have found themselves drifting into debt, and at the present time nearly £20 is still owing for *Journals* supplied. Postage is always a large item owing to the fact that the post is the only medium of communication with members, and notices of special and general meetings soon increase this item. Your Council have stopped for a time some of its advertising, though it is felt that this is valuable work, and that the Association should be continually kept before the notice of the profession. The expenses are cut down now as low as possible, and the appeal made for a slight increase of subscriptions has been kindly acceded to by a few of the members. The work done is all honorary, and your Council could and would do more by circulars, meetings, &c., if the means were supplied. In the multiplicity of



societies the claims on the purse are great ; but your Council feel that, as medical abstainers, the Association has the first claim on money devoted to the temperance cause. It is hoped that by next annual meeting the debt will be defrayed.

In November last an excellent paper was read by Dr. C. R. Drysdale, being "A reply to some doubts as to the superior health and longevity of total abstainers from alcohol."

In place of the usual meeting in February in a central position, your Council resolved to hold a special meeting in the populous district of Highbury, and to invite all the medical men in the neighbourhood to a conference on the subject of total abstinence. This meeting was held on February 25th, and proved a great success, a good number of practitioners responding to the invitation, and an animated discussion ensuing. This meeting was noticed by the press, and the policy of it warmly approved. A very sympathetic leader appeared in the *Lancet*, and a summary was given therein of the excellent address of our esteemed President, and the meeting was characterised as "so friendly, hopeful, and instructive, that we trust it will be repeated."

Similar meetings were held a few weeks later at Kensington, in the west of London, and at Mile End in the east. Your Council are convinced that the plan is a good one, and hope to hold similar gatherings from time to time during the coming year.

Communications have been held with certain abstaining medical men resident in the United States, in Canada, and in Australia, with a view to the formation there of associations of medical abstainers on similar lines to our own, and in connection with us, so as to form an International Medical Temperance Association. The result so far is, that on the proposal of Dr. N. S. Davis, an American Medical Temperance Association has just been formed, of which that distinguished physician and veteran abstainer has been elected president.

Other branches will doubtless arise in course of time and encircle the world with the testimony of medical men against the common use of intoxicating liquors.

Your Council resolved to hold, again, an examination of medical students in their third year on the subject of alcohol. They have been much encouraged in this by generous assistance rendered by gentlemen outside the profession, who recognise the value of this educational work, notably A. E. Eccles, Esq., and R. Cadbury, Esq. By an unfortunate oversight, Scotch students were not this year properly notified of the examination and hence the numbers entering were few, only six in all ; but others made enquiries respecting the examination, and no doubt read more or less on the subject. The successful competitors were Mr. Desai, of Grant Medical College, Bombay, and Mr. Couzens, of St. Mary's Hospital. It is intended to hold another examination next year and the interest will probably be greater.

The increased consumption of alcohol during the past year revealed by the revenue returns is a matter of importance which the medical profession, as guardians of the public health, ought specially to consider. There can be no question that the larger amount of alcohol consumed means a larger amount of alcoholic influence on the bodies and minds of the public, and an increased amount of intoxication. It evidently calls for a continued and more decided protest against the use of alcoholic beverages as injurious to the mental and moral powers, and to the health and life of the people. There can be no such effectual protest as total abstinence on the part of the medical profession, and that protest is enhanced to a very great degree by uniting together as members of a Medical Temperance Association, which exerts an influence both on the profession and the public, an influence obviously increased by every addition to its numbers.

Dr.	BALANCE SHEET, 1890-91.			Cr.		
	£	s	d.	£	s	d.
To Prize Fund 1889-90 brought forward . . . . .	11	13	6	By Balance due to Treasurer 1889-90 . . . . .	4	2 3
„ Subscriptions received . . . . .	80	7	6	„ <i>Medical Temperance Journals</i> . . . . .	39	16 7
„ „ Prize Fund 1890-91 . . . . .	13	10	0	„ Printing and Stationery . . . . .	14	14 6
„ Balance due to Treasurer . . . . .	3	5	9	„ Advertising . . . . .	11	2 8
				„ Stamps, Post Cards, and Wrappers . . . . .	6	1 0
				„ Expenses of Meetings, Hire of Rooms, &c. . . . .	4	9 9
				„ Prizes presented, 1890 . . . . .	15	0 0
				„ Prize Fund, 1890-91, un- expended . . . . .	13	10 0
	£108	16	9		£108	16 9

RICHARD LORD, M.D.

WILLIAM J. CORYN.

The Report having been adopted on the motion of Dr. NORMAN KERR, seconded by Dr. LORD, a vote of thanks was accorded to the auditors, Dr. Lord and W. J. Coryn, Esq., for their services, and they were duly re-elected. The officers for the ensuing year were then declared, after which Dr. Richardson presented the prizes to the successful students—the first prize of £10 to Mr. U. L. Desai, of Grant Medical College, Bombay, and the second of £5 to Mr. A. E. Couzens, of St. Mary's Hospital.

Dr. NORMAN KERR moved and Dr. MORTON seconded the following resolution, which was carried unanimously:—"That this, the fifteenth annual meeting of the British Medical Temperance Association, congratulates the president, Dr. N. S. Davis, and the secretary, Dr. T. T. Crothers, on the foundation of the American Medical Temperance Association, and trusts that under such guidance the practice of total abstinence will make rapid progress among the medical profession of the United States of America."

Dr. RICHARDSON then gave a short presidential address, in which he thanked them for his re-election, though he regretted that he had so little time to devote to them. He considered that the Association had

done very well in the past year. There were 515 members and associates, which was a very large medical society. They had only to consider what a loss to the cause of temperance it would be if these 515 ceased to support it. The paper read by Dr. Drysdale was well worth all the efforts of the Association; it was a most important and convincing paper, which had silenced opposition. They might also congratulate themselves on what had taken place in America; the fact that a society had been formed on the same basis as the British Medical Temperance Association had been received by the American press with acclamation. Dr. N. S. Davis was a man of such character and sound temperance practice that he would be a pillar to the cause, and he tells us that he is quite sure that the strength and endurance he has shown is due to his temperance. In course of time there must be a united meeting of British, American, and Continental abstainers. There was now a better feeling towards medical abstainers than there used to be. There was a conviction stealing over the minds of our best medical men that we are sound in what we are doing, that we are bold and conscientious, and deserve re-

spect. Some remarks he had lately made on the evil of alcohol in hæmorrhage had been well received. But it was not a new discovery. Dr. W. Hunter and Dr. Hewson had made similar observations. In regard to the present epidemic of influenza, there was some change of medical practice. He could not help thinking that alcohol had been responsible for some of the fatal cases; it caused delirium in many cases, and he had seen this disappear on stopping it. He had found that some of our best consultants were coming round to the view that alcohol was not good in these cases, and had forbidden it, and had sometimes been blamed for so doing. All these are good signs, and they might look to the future with confidence.

A paper on "Alcoholic Self-delusion," written by Dr. MacDowel Cosgrave, of Dublin, was then, in his absence, read by the Hon. Secretary. It is given in full elsewhere. A discussion followed, in which Dr. RICHARDSON said that many of the facts adduced by Dr. Cosgrave were most interesting. He had been struck by the anæsthetic action of alcohol, especially on the coats of the stomach, so that many would drink neat spirits and feel no pain from them, even though the morbid changes were great and on the point of producing death. When he was a student all cases were treated with alcohol, and even at the present day many medical men never saw a serious case in which it was not given; they had no experience of how cases went on without it. The state of the circulation producing chilblains, which had been alluded to, he had found to resemble

that produced by alcohol, and he thought it might be an inherited condition.

Dr. NORMAN KERR considered that the whole charm of alcohol was in its being an anæsthetic. He had seen cases of cholera and other diseases killed by the drink, while the friends thought it was curing them. He had known medical men who had no sympathy with total abstinence who yet did not use alcohol as a medicine, having found out its injurious effects. The depressing effect of influenza was increased by the knock-down effect of alcohol. There was still, however, a prevalent idea of the value of alcohol, but Dr. Cosgrave was right in saying it deceived them.

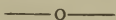
Dr. LORD had come to the conclusion never to call alcoholic liquors *stimulants* but *narcotics*, as they really were, and this was a new idea to many patients.

Dr. PRANKERD said that in Somersetshire, where he had practised forty years, gin and cider were favourite remedies for pain.

Dr. PARAMORE said he should like to see medical text-books giving sounder advice as to the use of alcohol.

Dr. RIDGE thought that the difficulty of persuading moderate drinkers to abandon the use of alcohol was chiefly due to the deceiving influence of alcohol on the nerves. This it shared with all the class of narcotics, which, after being used a short time, were considered necessities of life, which was an evident fallacy. He moved a vote of thanks to Dr. Cosgrave, which was seconded by Dr. MORTON, and carried unanimously.

The proceedings then terminated.



#### DISTRICT MEETING AT KENSINGTON.

THE second of the medical meetings arranged by this Association was held on Friday, 10th April, in the Vicarage Parish Room, Kensington, kindly lent for the purpose by the vicar, the Hon. and Rev. E. Carr Glyn. Several of the medical practitioners in the neighbourhood attended.

In the temporary absence of Dr. Richardson, Dr. Norman Kerr took the chair and introduced the subject. He stated that the bond of this Association was personal total abstinence from all alcoholic liquors. He advocated it on the ground of the influence which medical men exert on their

patients. He had himself taken the pledge for the benefit of a patient, and had found it a great benefit to himself. This patient had remained an abstainer, and had been the means of reforming some 300 others. As an abstainer, without preaching, he had tenfold as much influence, and was more helpful to inebriates and to those who were on the high road to intemperance. There is a superstition in favour of intoxicating liquors. We are bound to declare that there is no food value in them. By not being abstainers we lose moral power. If the whole profession were next year to become abstainers what an influence it would exercise on the nation!

Dr. JOHN RAE said he had an experience in North America, from which alcohol was excluded except for the officers, and he and others gave it up that the Indians might not say that they took what they would not allow to them. He had spent five winters in the Arctic regions and without fire, the temperature being extremely low, and spirits would have been very injurious to them. He would guarantee that in cases in this climate where there was death from cold it was due to drink; if a man wrapped himself in a blanket and went to sleep in the Arctic region, he had never known anyone killed by cold, nor would they be here.

Dr. ATKINSON said that among the medical men of the neighbourhood temperance prevailed. He had been a total abstainer some years at one time, but he thought as general practitioner he had more influence among all classes of patients for good as a non-abstainer, though he rarely, if ever, took any. He had the very highest opinion of Dr. Richardson, except in this matter. He thought cancer was checked by the use of a little alcohol, because it was due to mental causes, and that alcohol prevented depression. He thought many did themselves harm by drink, but he considered it untrue that doctors made drunkards. He was often asked to prescribe drink, and suffered by refusing. The moral side of the question ought to be pushed.

Dr. HEYWOOD SMITH thought mental depression had some influence in the production of cancer in cases of hereditary tendency, but he did not think that alcohol prevented it, and the cases of cancer had been increasing, while the consumption of drink had increased.

Dr. BARRETT said his experience with regard to alcohol had been varied. He thought his life had been saved as a student by port wine; but on practising in Norfolk, a cold malarious climate, he found that he got through the winter better as an abstainer, but began to lose weight and strength in the spring, and that he did not recover until he took wine. But in London he did not find any need for it. In Norway during the summer he found he did not want alcohol.

Surgeon-Major PRINGLE thought there was a great responsibility in ordering stimulants in view of the danger of creating a craving for them, or of reawakening it in those who had been the subject of it. He had seen a great deal of cholera, and he would never give a stimulant for it. He considered that the secondary fever was largely due to alcohol. He had practised in the most malarious district of Bengal, and had been an abstainer all the time.

Dr. LORD said he greatly approved of these meetings. He considered alcohol a narcotic rather than a stimulant, and, by calling it so, a mighty reform would be effected. If they prescribed alcohol they ought to put it in the medicine bottle; if all medical men were compelled to supply the wine they ordered, very little would be given. In prescribing beer they prescribed an unknown remedy, for no one knew what it was made of; absolute alcohol ought to be described if necessary.

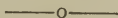
Dr. RIDGE said that the Association earnestly desired that medical men should abstain from the personal use of alcohol as a beverage. Dr. Kerr had spoken of the immense impetus to the cause which would follow if the whole profession became abstainers, but that would be by the individuals of the profession doing so, and they



were the individuals who should begin; there were nearly 450 abstaining members, and even that number had great influence for good. We want the profession to declare plainly that no narcotics and no alcohol should be used except as a drug. The evils caused by it were so great that they could not be detailed without an appearance of exaggeration. The personal influence of pronounced abstinence on the part of an abstaining doctor had been questioned; he could declare from his own experience that nothing was more calculated to promote the cause of temperance.

Dr. RICHARDSON wished to notice a few salient points. Dr. Atkinson had said that medical men had more influence as non-abstainers. He used to think so, but he had found himself stronger in influence in private life as an abstainer. If he said he took it because he was weak, they said that they took it for the same reason, and so with others. As regards cancer, one of the earliest papers he had read was on its nervous origin, and that it was more often led up to by mental worry or distress; but does alcohol make any difference? His experience shows that total abstainers seem to have special exemption from cancer

and malignant disease. Because what leads to so much depression and mental disease as alcohol? He had never found any difficulty in going about as a total abstainer, and the most common expression is one of surprise that he is as jovial as anyone. As regards work he had gone through two or three courses. He had been a practical abstainer as a young man, and then took wine in an ordinary way for twenty years, and now for about twenty more he had taken none. But the wine-drinking years had been bad years, with a consciousness that he was wrong; he was stronger both physically and mentally now than he was twenty years ago. If Dr. Barrett would give it a trial for four or five years he would come to the conclusion that it was a delusion to suppose that it was necessary. He used alcohol in disease, not absolute, but of specific gravity '830, as spiritus tennoris; but there was a distinct advantage in not giving a prescription, but in putting it into the medicine without the patient's knowledge. He thanked them for their attendance, and moved a vote of thanks to the Vicar for the use of the room, which was carried unanimously.



## DISTRICT MEETING IN EAST LONDON.

A MEETING of medical men convened by the Association was held in the Club Room of the Great Assembly Hall, Mile End, London, on Friday, 17th April, by kind permission of Mr. F. N. Charrington.

Dr. NORMAN KERR, who presided, said that if this society did nothing but furnish a compact list of medical men who are abstainers it would furnish a rampart against the drinking customs of society. If we were living in Burmah, where we have introduced opium in a shameful way, we should all agree that it would be our duty to keep ourselves free from all social uses of opium. Opium may be a more deadly poison, but in some respects alcohol was worse. The medicinal use of these ought to be safeguarded,

as the use of ether has lately been by the British Government; they have scheduled ether as a poison, so that it can only be bought in the same way as arsenic. There was no difficulty with ether, as there are no great vested interests, and they did not take it themselves. The opium victim is a pitiable object, but added to this in this country there are the evils of crime and violence as the result of alcohol, a material poison which destroys the mental and moral qualities. The public look to the profession for guidance as to the harmfulness of articles of diet, and we ought to speak out about alcohol. It is impossible to have the universal moderate use of alcohol; it has been tried at for generations; we cannot have the drink

without drunkenness, even if the moderate use were beneficial. Its tendency is to dethrone reason. Therefore, whether on the strict ground that it is an unnatural narcotic, or on account of the evils so widely spread, we have an impregnable position. We put on one side the use of alcohol as a medicine. We say that the social use is attended with physical, mental, and moral evil. If this plan of abstinence were universal in the medical profession it would tend greatly to the benefit of the community.

Dr. HINGSTON FOX said that he was, and had long been, an abstainer. There was one aspect of the question which touched us closely as medical men. Many consulted us for disorders either caused or aggravated by alcohol, and these formed no small proportion of the cases one met with in private, and specially in hospital practice. Supposing there were only 10 per cent.—a very low estimate in hospital practice, certainly far below the truth,—what was our duty to these? Certainly to induce them to abstain. It was no use to tell them to restrict themselves to a small quantity. But it was very difficult to get them to abstain. The relatives were great obstacles; it practically meant that we must get these relatives to abstain too and to get alcohol banished from the table and house. To secure this our power would very much depend on our own personal habits; we must, for the sake of this 10 per cent., abstain as a duty, as belonging to a profession which had for its high aim the health and benefit of the whole community. This had largely influenced him.

Dr. CORNER said he had great experience among the poor in the East End, and the proportion of disease due to drink was alarming. The facilities for getting drink were too great. Some practitioners recommended it too freely. There ought to be greater legal powers for treating dipsomania.

Dr. HEARNE said there were few kidney cases in the East End compared with other parts, such as Dublin. In dealing with patients he recommended them to give up their drink

for a fortnight, and in many cases they had kept on. There was a great deal of ignorance as to the possibility of living without beer. He found that, though he was well known as a total abstainer, he was largely employed by publicans.

Dr. A. GRANT thought the difficulty was to get patients to continue abstainers when they got well, if they were so when ill. He thought the progress of the temperance sentiment and its legal position were most encouraging.

Surgeon-Major PRINGLE had been led to become an abstainer by wishing to show the soldiers that it was possible to live and be well without drink. He was only sorry that he had not become a teetotaler earlier. He thanked God that it had been the means of helping others in a way nothing else would. It was terrible to hear the blame put on doctors, often unjustly. He had seen much extension of drinking among women.

Dr. RIDGE deplored the fact that there were comparatively so few abstaining doctors, though they were increasing every year. But if so few, their responsibility to spread the truth was all the greater. Medical men, by their training, ought to know more about alcohol than any other class, and should witness against it; but it was regrettable that there were so few who had really gone into the question thoroughly, and understood the bases of total abstinence. Sir James Paget and the late Dr. Farr had actually shown that they were ignorant of the fact that the Temperance Provident Institution had published statistics showing conclusively the advantage to life of total abstinence compared with moderate drinking! Others had tried to break the force of these statistics by saying that the general section were immoderate drinkers. But their mortality was slightly under the average, and so this was conclusively disproved. Sir Morell Mackenzie was reported to have quoted Dr. Parkes as saying that the moderate use of alcohol up to 2 ozs. for an adult man was harmless. This was a misquotation. Dr. Parkes said that

1½ to 2 ozs. could be taken in a day without immediately obvious ill-effects by a strong man accustomed to it. He had not said that its daily repetition might not in time do harm, and we know that such is the case. Besides, delicate tests had shown that the nervous system is temporarily injured by much smaller doses, and that the person injured not only does not perceive the injury, but actually, though erroneously, believes he is more capable than before. It was because

alcohol thus injured the organ of the mind long before it caused any obvious signs of drunkenness that it was so dangerous. This was a physiological question, and the truth must be brought home to the minds of the people.

Dr. NORMAN KERR, in closing the meeting, said that it was very difficult to get legislation. People could easily commit suicide if they would only do it by means of alcohol. We must declare the truth that it is a physical evil, and in time we should succeed.



## Notes and Extracts.

ALCOHOL AND NERVE POWER.—In an article in the *Strand Magazine* on "Child Workers in London," Mr. Edward Bale, a fine specimen, it is said, of the healthy trapezist, and the head of a troupe, is reported as saying—"Directly an acrobat takes to drinking he is done for. I rarely take a glass of wine. I can't afford to have my nerves shaky."

MEDICAL INVESTIGATION. — The Eclectic Medical Association of New York State has appointed a Committee of three to prepare a paper or papers on "The Utility of Alcohol as a Medicinal Agent." Professor E. V. Wright, of New York, is the chairman of the committee, and it is said he will spare no efforts to bring the matter properly before the physicians and the public.

THE SCIENTIFIC ASPECT OF DR. KOCH'S REMEDY. by William Odell, F.R.C.S. England (Young S. Pentland, 6d.). This is a paper by a member of the B.M.T.A. which was read by request of the Torquay Natural History Society. Mr. Odell is a believer in Dr. Koch's remedy combined with good hygienic treatment, and gives a *resumé* of cases treated by himself and others, on the whole with benefit. While the treatment is still *sub judice* it is well to hear what may be said for it as well as against it.

THE TREATMENT OF INEBRIETY IN GERMANY.—The second report of the Institution for the Treatment of Inebriates at Ellikon-on-Thur, which has recently been issued, shows that, during the year 1890, fifty-five persons were under treatment. Of thirty-six discharged in the course of the year, seventeen were found after strict inquiry to have remained total abstainers up to the date of the report, eleven had continued temperate, though not abstaining entirely; six had relapsed, and two had become insane. Of ten patients discharged in 1889, seven had remained total abstainers up to date, and three had relapsed.—*British Medical Journal*.

THE FIRST DOCTOR WHO PRESCRIBED BRANDY AS A MEDICINE.—The *Popular Medical Monthly* for May gave an account of Dr. Arnold, of Villanova, who lived from 1235 till 1313, and was at the close of the thirteenth century the ordinary physician of Peter III. of Aragon. He was the first physician to administer brandy, which he regarded as the "Elixir of Life," and he openly inculcated the practice of swindling and fraud. "If thou canst find nothing by an examination of the urine, declare that an 'obstruction' of the liver exists. If, again, the invalid says he suffers from headaches, thou must say they spring from the liver. Particularly, how-



ever, use the word 'obstruction,' since it is not understood, and it is of great importance that people should not understand what thou sayest."

**HABITUAL DRUNKARDS.**—Lord Herschell has succeeded in carrying in the House of Lords his motion for an inquiry into the best methods of dealing with habitual drunkards, and as his lordship spoke of the importance of obtaining "all the advice they could, and all the experience which existed in this and other countries," there is some reason to hope that the inquiry will be sufficiently comprehensive to ensure practical results. All who know anything of the working of existing Inebriate Acts are aware that they are exceedingly defective, but that is not so much the fault of the promoters of such legislation as of those members of Parliament who opposed more effective measures.

**THE ALCOHOL BILL IN FRANCE.**—In a recent lecture M. Jules Rochard, the well-known hygienist, calculates the loss, direct and indirect, entailed by the consumption of alcohol in France. The following are the figures he gives: Value of alcohol consumed (exclusive of duty paid), 128,298,384 fcs.; loss of labour, 1,340,174,500 fcs.; medical treatment and stoppage of work, 70,842,000 fcs.; cost of maintenance of insane, 2,652,912 fcs.; suicides and deaths from accidents, 1,922,000 fcs.; cost of repression of crime due to alcohol, 8,894,500 fcs.—total, 1,555,757,296 fcs. M. Rochard calculates that the loss occasioned in England by the consumption of alcohol is not far short of double the above sum—viz.: 2,922,130,075 fcs.—*Lancet*.

**ETHER DRINKING IN ULSTER.**—At the Maghera Petty Sessions on Saturday, 30th May, a grocer named Thomas Porter, Tubbermore, was summoned at the suit of District-Inspector Reilly, for having on the 16th March last sold ether at his shop in Tubbermore without labelling it as poison. Defendant admitted the offence, and pleaded his ignorance of the law as his excuse. The Chairman said, having regard to the fact that it was the first offence of the kind in which a prosecution was brought, and considering

all the circumstances, they would impose a nominal penalty of 1s. and costs. They cautioned defendant and others against a repetition of the offence, intimating that the next person brought before them guilty of a similar offence would be severely dealt with.

**MEDICATED WINES AND EXTRACTS.**—At Dublin, before Mr. Byrne, Q.C., Mr. Florence M'Carthy, druggist, was prosecuted, at the instance of the Commissioners of the Inland Revenue, for selling wine at his place of business without a license.—Mr. James Murphy, Excise officer, deposed that he purchased in the defendant's establishment a bottle of "Liebig's Extract of Meat and Malt Wine," and he forwarded it to Somerset House. Mr. Geo. Naylor Stoker, analyst, of Somerset House, deposed that he examined the contents of the bottle and found it to be what was known as red—composed of 19/9 of proof spirits, and there was a similar quantity of organic substance answering to the description of Liebig's extract of meat. This was recognised as a medicine by the British Pharmacopœia. The defendant said he did not know the wine was an Excise article. He did not sell five bottles of it in the year, and he did not know he was subject to a penalty. His worship inflicted a fine of £5.

**SIR WALTER FOSTER ON TEMPERANCE.**—Sir Walter Foster, M.P. for the Ilkeston Division, presiding at an open-air temperance meeting at the Codnor Park Monument Grounds, remarked that the drinking custom of the present age was the great curse of our nation. They spent twice as much on intoxicating drink as on bread. Drink was not the staff of life, or did it add to the intellectual or moral strength of the people. Diseases accruing from drinking were appalling. The majority, he believed, were traceable to the drink and drinking habits of the people. People paralysed by the drink were most likely to become a prey to the more virulent diseases, such as the deterioration of the tissues, sapping moral strength, becoming helpless and hopeless wrecks. These were amongst the worst cases a doctor had to witness.



**THE RUSH TO ALCOHOL.**—Whatever the cause, it is a significant fact that the Budget presented by the Chancellor of the Exchequer discloses a substantial increase in the amount of alcohol consumed in the United Kingdom. The growth of revenue from alcoholic intoxicants during the past twelve months has been no less than £900,000. A peculiar feature of this growth has been an increase of revenue under each class of liquors. There has been no great epidemic of influenza to which to credit this solid increase, and there seems little doubt that the greater prosperity of the people has been the main cause of this remarkable additional expenditure. It is to be regretted that the surplus of wealth has taken this questionable form. There surely must have been some defect in temperance teaching to account for so decided an addition to our former far too heavy expenditure on beverages so perilous to many in the community. — *British Medical Journal*.

**THE TREATMENT OF INEBRIETY IN NEW ZEALAND.**—We learn from the *Lyttelton Times* that Dr. Hacon and others are taking active steps towards the opening of a home for the treatment of inebriates. Strange to relate, the Mayor of Christchurch, who presided at a meeting, thought that prevention was better than cure, and that such a home would be labour ill-spent and money wasted. Dr. Hacon had no difficulty in showing that inebriates required treatment like the subjects of any other disease, and he trusted that the accommodation which there was formerly for inebriates at Sunnyside Asylum, but which had somehow been withdrawn, would be restored. He also advocated greater simplicity in the mode of entrance. The Mayor does not seem to understand that no amount of prevention can cure present inebriates, and that those who are most interested in the cure are usually the most interested in the prevention of inebriety. It has been found that the association of inebriates with lunatics is bad for both, and that a special institution is required for the sound treatment of each. We wish

the present effort in New Zealand every success.—*British Medical Journal*.

**PARAFFIN OIL AND ALCOHOLISM.**—The number of remedies—not to say nostrums—which have from time to time been vaunted as specifics for alcoholism is legion, some of the latest being red cinchona, strychnine, ichthyol, phosphorus, hydrobromate of hyoscyne, and hydrastis. The most recently suggested remedy is petroleum or paraffin oil, to which the attention of the St. Petersburg medical authorities was called by an accident. It appears that a labouring man, who had been drinking heavily for four days and nights, entered in a complete state of intoxication a grocer's shop, without being conscious of where he was or what he was doing. Unnoticed by the shopkeeper, he staggered up to an open cask of petroleum, and began drinking from it. With difficulty he was dragged away from the cask, and, seeing the large quantity of petroleum he had imbibed, it was expected he would fall down senseless, and be seriously ill. Instead of this, however, it is related that the petroleum had cured him of all the ill-effects of over-drinking, the nausea, unsteadiness of gait, and headache, disappearing as if by magic. In fact, it is stated that he left the shop sober, and quite another man as compared with what he was before he took the draught of petroleum!—*Lancet*.

**THERAPEUTIC REVOLUTIONS.**—In a recent address on "Remedies, New and Old," at Belfast, to members of the Ulster Medical Society, Professor W. T. Gairdner, M.D., of Glasgow, referred to the use of alcohol or of alcoholic stimulants in disease, and asked, "Can it be for a moment forgotten by any of us here that this, and the due limits of it, or even the existence of a therapeutic use of alcohol at all, has been the subject of controversies, even in our own day, which appear to exhaust all the possibilities of the extreme differences in opinion, from the enormous, and, as I think, deplorable and even ruinous excesses advocated

by the late Dr Todd, to the almost absolute disfavour with which the administration medically of even the smallest amounts of alcoholic remedies is regarded in some quarters? No doubt, the question of the therapeutic use is here complicated by other questions, moral and social, some of them of the first importance; but can it be a matter of indifference to us, in considering the whole question of remedies in general, that our professional convictions in regard to this particular one have been swayed this way and that, under the impulse of great names and plausible theories, not during the Dark Ages, not when (as we are accustomed to think) men were led chiefly or wholly by authority, but in this nineteenth century of ours, and even beyond the middle of the century?"

THE INNOCUITY OF PURE SPIRITS.—The evidence tendered by several scientific witnesses before the Committee engaged in investigating certain questions as to the bonding of spirits, tends to foster the belief, already but too general, that the injurious effects of spirit drinking are due less to any intoxicant action of the spirit than to the presence of accessory bodies left in as impurities, or added by way of condiment. It is unnecessary to question the accuracy of the statement that raw spirits are a trifle more deleterious than those of older standing, and therefore presumably better quality, nor need we discuss the suggestions as to the nature of the chemical processes which take place in bonded spirits. It is sufficient for our purpose to assert, and the assertion will be endorsed by professional opinion at large, that the great evil is spirit drinking *per se*. The slight exaggeration in the matutinal headaches, *post potu*, and an additional tinge of white, brown, or yellow on the tongue, are mere details compared with the effects of spirit drinking on the viscera and tissues. These have been so often demonstrated and dilated upon that reiteration can be dispensed with, but we wish to protest against the emission of opinions by medical and scientific

men which tend to place the saddle on the wrong horse, and which encourage victims of the alcoholic habit and others to blame the quality rather than the quantity of the liquids they imbibe.—*Medical Press*.

STIMULANTS IN COLLAPSE.—Every physician is confronted frequently with cases of profound collapse, or dangerous weakness. The patient may be suffering from surgical shock, or severe hæmorrhage, or a great physical injury, or may be in the critical stage of pneumonia, or infectious fever, or there is a sudden giving out of a damaged heart. What can be done in these cases? . . . The list of stimulants recommended in various asthenic conditions is a very long one. It includes alcohol, digitalis, ether, ammonia, camphor, nitro-glycerine, strychnia, musk, oxygen gas, bleeding, cups, electricity, hot applications, artificial respiration, &c. Yet how often it is that all those remedies not only fail, but seem to make no impression. The patient gets an ounce of whisky every hour, ten drops of digitalis every three hours, or perhaps nitro-glycerine every fifteen minutes, oxygen gas is administered perhaps continuously, and still there is no reponse, but the vital forces sink steadily. When this happens, the doctor shakes his head and says it is of no use, the patient must die. And he is right, the patient does die; yet often it seems as though our art ought not to be so futile. Thus, in cases of pneumonia, collapse comes on when the patient was apparently doing fairly well, and if life could be prolonged twenty-four hours the disease would perhaps take a favourable course. Here is a problem, then, for therapeutists to work out. Can there not be devised or discovered more powerful stimulants than we now possess? Are alcohol and ammonia our last resorts? We believe not. He who discovers anything twice as potent will do as great a service to mankind as Jenner, and, with all due respect to "tuberculin," a much greater service than Koch—*New York Medical Record*, April 25.

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# GERANIUM CUTTINGS

KEPT UNDER EXACTLY THE SAME  
CONDITIONS EXCEPT AS TO ALCOHOL for  
SIX WEEKS

ALCOHOL 1% WATER ONLY

1 TEASPOONFUL in

12½ OUNCES. OVER.

HALF A PINT

BOTH WATERED

AT THE SAME TIME

EVERY OTHER DAY





THE  
MEDICAL TEMPERANCE JOURNAL.

October, 1891.

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Original Contributions.

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ALCOHOL AND PLANT LIFE.

By J. J. RIDGE, M.D., *Hon. Sec. British Medical  
Temperance Association.*

SOME readers of the *Medical Temperance Journal* may have noticed the paper read by Dr. Wilks at the annual meeting of the British Medical Association on the subject of alcohol, and also the subsequent discussion. In the course of the few remarks I was able to make in the brief time allowed I referred to the effect of alcohol on growing plants, and exhibited the photograph which is reproduced on the opposite page. The photograph excited some interest and some criticism. I venture to think that its testimony to the actual and positive injury which alcohol can do to living structures was so telling that Dr. Wilks felt compelled to parry it by a joke, and others have caught at any suggestion which might seem to detract from its importance. However that may be, I think it may be interesting to put the case more fully than I could possibly do at Bournemouth, and to indicate what, in my opinion, are the conclusions which may be drawn from it.

In the first place it is a fact beyond dispute that plants watered for some weeks with pure ethylic alcohol diluted with ninety-nine parts of pure water are injured by it. They grow more slowly, do not thrive, look sickly, and the development of chlorophyll is interfered with. This is not by any means the least amount which will produce any effect. Considerably smaller quantities will produce the same kind of effect in a less degree. What the limit is I have not yet determined, but as long as it has any effect at all it is injurious.

The experiment proves that alcohol has a chemical effect on the actual tissue of the plant. There are no nerves of nutrition in plants, and no arrangement of heart or arteries by which the

flow of sap could be accelerated or hindered. Alcohol acts on the cell elements, on the protoplasm and cell walls, and hinders normal growth, and, possibly, normal endosmosis and exosmosis.

It also shows that pure ethylic alcohol is itself deleterious, and that the idea, which is more prevalent abroad than in England, that pure alcohol is innocuous, is not correct. But the question arises, Does this experiment apply to man? Does it show that alcohol is injurious to human beings? Dr. Wilks endeavoured to turn it off by saying that if he were a geranium he might consider that the experiment had some force, and that possibly turtle soup might be injurious to plants, yet this would not show that turtle soup would injure men.

Dealing with this latter point first, I reply that I am quite aware that there may be things which are injurious to plants but not to men, and I have never asserted that alcohol must be injurious to men *because* it is injurious to plants. We know, everyone knows, that much alcohol is injurious to men, I show that it is injurious to plants likewise. *Being injurious to both*, I show that it is injurious to plants in proportion to its amount, and I establish a strong presumption that it is similarly hurtful to human beings. The effect on plants is palpable, and is an object lesson which may impress the minds of many who are too ready to forget the effect which daily moderate doses, long-continued, have in modifying the cells and tissues of the body by their chemical action.

Others have put forward the converse objection. They have said that some things, such as sewage, are beneficial to plants, but injurious to man, therefore—what? Are we entitled to say that alcohol cannot be injurious to both? Surely not! But, if not, the objection falls to the ground. It still remains true that it injures both.

It is a well-known fact that there are great differences among animals. Goats can browse on tobacco with impunity, a plant which is a deadly poison to men. But if alcohol were proved to be injurious to goats it would be absurd to reject this experiment because they can eat tobacco. But I need not pursue this farther.

The real point to face is whether the protoplasm of the vegetable world has laws in common with that of the animal world. Professor Allman, at the meeting of the British Association in 1879, came to the conclusion that there was no important difference between them. He cited the experiments of M. Claude Bernard with ether and chloroform, which send seeds to sleep as well as men. I have shown that alcohol injures them in the same way. But I have not rested content with that; I have shown that alcohol causes the eggs of the blowfly to hatch more slowly. I have also shown that animals, such as the *Daphnia*

pulex, exposed to the influence of minute quantities of alcohol, succumb, while those kept under the same conditions without any continue to live indefinitely.

But if alcohol is thus injurious to the members of both the animal and vegetable kingdoms, I am entitled to regard the palpable injury done to the geranium and other plants as an indication of the harm which alcohol is doing to human beings, often secretly and insidiously. The life of the plant is measured by weeks or months; that of man by years or decades. The morbid effects of drink are often so slowly produced that men ignore the connection, and attribute the higher mortality of non-abstainers to anything but the right cause. I claim, certainly, not to have discovered that alcohol is injurious to man, but to have given a fresh proof of the poisonous nature of alcohol, and of the hurtfulness of small quantities of it, which may bring conviction to the minds of some who desire some such positive demonstration.



## NATIONAL AND INTERNATIONAL CONGRESSES.

THOUGHTFUL temperance reformers will derive much encouragement from the fact that the alcohol question is becoming more and more an irrepressible topic for discussion at medical and scientific congresses in all parts of the civilised world. Not since the Dublin meeting of 1887, when a Collective Investigation Committee presented its memorable but misleading report upon intemperance, has the alcohol question occupied so conspicuous a place on the programme of the British Medical Association as at the fifty-ninth anniversary celebrated in July last at Bournemouth. The papers read, or taken as read, included half-a-dozen upon various aspects of alcoholism, the most important from a professional point of view being those relating to the non-alcoholic treatment of diphtheria and influenza by Drs. Alfred Carpenter and Norman Kerr; but none of the papers aroused so much interest as a special discussion upon the effects of alcohol that took place in the Medicine Section, under the presidency of Dr. P. H. Pye-Smith, F.R.S., although it must be admitted that the debate proved less satisfactory than was generally expected. Remembering Dr. Wilks' earnest remonstrance against the reckless prescription of alcohol which was sent forth nearly thirty years ago, we anticipated a deliverance worthy of his high reputation and his enlarged experience, but were somewhat disappointed. His paper, which occupied an hour in

reading, was spiced with amusing anecdotes, and embodied several good points, but could scarcely be regarded as an adequate representation of the momentous topic which he had undertaken to introduce for the consideration of his scientific *confrères*. Dr. Wilks, however, laid some stress upon the point that alcohol is a sedative and not a stimulant, and he also stated that people in health are quite as well and probably better without it, that it should not be given to children, and that it was ridiculous to prescribe alcohol merely because a patient was "low."

A place was also assigned to "The Relation of Alcoholism to Public Health, and the Methods to be Adopted for its Prevention" on the programme of the Seventh International Congress of Hygiene and Demography, held in London during the second week of August. The discussion was opened by Sir Dyce Duckworth, LL.D., and by Professor Westergaard, of Copenhagen; and other scientific men of "light and leading" freely expressed their opinions; but it can scarcely be said that anything new or striking was elicited by a discussion from which something more definite and conclusive might reasonably have been expected. Dr. Dyce Duckworth made an elaborate attempt to enshrine the ordinary social use of alcoholic intoxicants as a laudable, desirable, and even Christian virtue, as conducive to health as to morals; but his paper was practically an impeachment of alcohol as a perilous and potent agent of mischief. Sir Dyce urged that the sale of alcohol to children under the age of puberty should be made penal, and that adults should not take more than from 1 ounce to  $1\frac{1}{2}$  ounces of alcohol daily, that amount only with meals, and preferably when the day's work is done. Further, this enthusiastic champion of alcohol would favour certain measures of local option. Nay, he would punish with the lash those whom he calls "foolish, callous, vicious drunkards," while he recognises the existence of another class of diseased inebriates, the victims of an inherited or acquired mania for alcohol. What stronger indictment of alcohol could be framed by the most radical teetotaler? Sir Dyce has given his cause away. Despite his praises of alcohol as a wholesome and safe beverage, the minute precautions which he lays down for drinking even moderately clearly prove that, notwithstanding his brave words, he knows the peril underlying even a limited use of so potent a substance. Abstainers, and indeed all persons possessed of common sense, are, on Sir Dyce's own showing, amply justified in saying that, if alcohol is so dangerous that it can be taken properly only by the strict observance of such exacting conditions, the game is not worth the candle.



Much more satisfactory in every respect than the papers furnished by Dr. Wilks and Sir Dyce Duckworth was the presidential address recently delivered at New York by Dr. Nathan S. Davis, of Chicago, one of the most able exponents of scientific temperance in the United States. Dr. Davis's conclusions, based as they are upon an exceptionally valuable professional experience of more than half a century, are worthy of careful consideration by medical practitioners in all parts of the world, to whom he thus appeals:—

“ If you, one and all, will patiently and boldly verify the truth of these several propositions as I have done, by acting in accordance with them at the bedside of the sick, you will not only soon realise a marked diminution in the ratio of mortality from all those diseases for which you have heretofore prescribed alcoholic liquors, but by uniformly characterising such liquors as depressing, paralysing, and poisonous, instead of stimulating and tonic, whenever they are alluded to, you will save many thousands from death annually, and do more towards banishing the terribly destructive habit of liquor-drinking from every circle of human society in one decade than has been accomplished by legislation in a century past. You, more than any other class of persons, have free access to the individuals and families of every grade of human society. It is to you that all classes look for guidance in all matters relating to the preservation of health and the prolongation of life. Not only the common language you use in relation to alcoholic liquors, but your individual practices also, are capable of exerting a mighty influence over the maxims and habits of all other classes. And it must be remembered that in proportion as the influence of your precepts and practices is great, so is your individual responsibility for actively exerting that influence in the right direction.”



## Miscellaneous Communications.



### DISCUSSION ON THE EFFECTS OF ALCOHOL.

IN the Section of Medicine, at the annual meeting of the British Medical Association, held in Bournemouth, 31st July, Dr. P. H. PYE-SMITH, F.R.S., in the chair, Dr. SAMUEL WILKS, F.R.S., Consulting Physician to Guy's Hospital, opened the dis-

cussion by reading the following paper:—

The subject which I now bring before your consideration is as old as medicine itself, and yet is ever new. Its bearings upon the welfare of humanity, as well as its relations to

therapeutics, must make it of continued and never-ending interest. The subject of the evil effects of alcohol, as formulated by a section of society, has continually been before the Association, and, for my part, without having joined its ranks, I found it necessary, at an early period of my career, to withstand the free use of alcohol in medicine.

On this occasion it has been thought wise, without attaching ourselves to any dogmatic section, to see how medical opinion stands at the present time in reference to the use of alcohol, both in health and in disease, taking as our guide simple observation and experience. We may thus enter upon the discussion with free and unbiassed minds, for we see no reason why opinions should not be formed as disinterested and honest as on the use of any other article of diet or medicine. It might, perhaps, have been thought wiser to have taken up only a portion of the subject, and discussed alcohol in its various forms, either as an article of diet or as a therapeutic agent; but such a separation of the question is practically impossible, seeing that its very recommendation by many medical men as a beverage is because they regard the individual requirements as a departure from health. Diet and medicine are thus inextricably mixed. This makes the subject a very wide one, seeing that the two parts cannot be dissociated. I may as well say at the outset that I have nothing very novel to advance; my position here is to ask you to offer your opinion and give your experience on a subject which must be familiar to you all, and has its important bearings on society, and in the treatment of disease. Every one is competent to make a statement, and thus I hope we shall gauge the sense of the Association at the present day.

It would have been a far easier task for me to have taken up the question on some fixed basis even from opposite points of view, and then defended the security of my position. I could have taken on the one hand the position of the supreme value of alcoholic drinks to mankind, or I could have taken the

position of their extreme harmfulness. It would have been easy to show the enormous amount of evil which alcohol causes in the shape of poverty, crime, disease, and miseries of all kinds, and from this conclude that it were better if such a substance were swept off the face of the earth, and then insist that philanthropists could have no higher aim than to join in a crusade against this poison (as some designate it) and try and construct a regenerated world. On the other hand it would be equally easy to frame the proposition that alcohol in some shape is a necessary part of the sustenance of a large part of the human race; that the fermented juice of the grape has been used from time immemorial amongst the most cultivated nations, and at the present moment amongst those especially who boast of the highest civilisation; and further, that the peasantry of wine-growing countries are the most temperate of the European people. It were a simple proposition to make and not easily refuted, that whatever food mankind partake of must be the right. Amongst the lower animals we never for a moment argue as to the right or wrong of their food, but we assume that they take what is best suited for them, and even amongst human beings we continually compare the food of those who live in northern climates with that of the inhabitants of the sunny south. We do not call these differences errors in diet, but assume the correctness of their instincts. In the same way it may be argued that other nations have discovered the food which is most appropriate for them. If the Turk or Hindoo flourishes on a particular kind of food we do not quarrel with him, but believe it is best suited for him, and in the same way the Englishman, Frenchman, or Scotchman, has found the kind of food best suitable to his condition. If I chose to take this position I should have little more to do than discuss the evil effects of alcohol when taken in excess, and what is its value in disease. I would rather, however, make no assumption on either side, but approach the subject with an open mind and see

as fairly as I can put it how the alcoholic question now stands.

I shall briefly go over the old ground, so as to remind my hearers of some of the more usually-discussed questions relating to the subject. First of all, a few words on the physiological action of alcohol. Alcohol appears to act directly on the nerves of the mouth and so at once on the heart and circulation. Physiologists would probably say that it has an inhibitory action on the vagus, and so increases the vigour of the heart and vessels. Brunton tells us that the act alone of sipping any fluid has a somewhat similar effect; it rouses the heart to more vigorous action than if the fluid were simply swallowed. I have always known as a fact that there must be an immediate effect on the nerves when one has seen a mother place one or two drops of brandy on a lump of sugar, and, putting this in the mouth, immediately restore her fainting child.

When taken in large quantities alcohol is absorbed and then acts first of all and almost immediately as a stimulant. This is seen by the flushing of the face, more rapid action of the heart and increased mental vigour, giving a vivacity to the features and to the conversation. If these effects are seen on the surface of the body, probably similar ones take place in the interior, as the brain and other organs. It is therefore presumed that alcohol may promote an increased flow of gastric juice. In still larger quantities alcohol is absorbed and ceases to have a stimulating effect. It then produces marked lowering of all the functions of the body, its more immediate effects being seen on the nervous centres and digestive organs. This is best observed when it produces anæsthesia and loss of motor power; the latter sometimes ending in absolute paralysis. The anæsthetic effects of alcohol are well known, as, for instance, in the case of a drunken man in a quarrel who is quite insensible to the blows or other injuries he is receiving, or when a severe neuralgia or toothache is removed by a glass of brandy, or intense gas-

tralgia is immediately relieved by a teaspoonful of the same remedy. If we assume that the most powerful agent in wine is alcohol, then its power of benumbing the nerves of sense has long been known; for we read in a very old record that it was the custom to set forth good wine at the beginning of the feast, and when men had well drunk that which was worse, that is, when their sense of taste had been impaired—and which could have been due to no other cause that I know than the imbibition of alcohol. This sedative or benumbing effect of alcohol is one of its marked properties, and is the reason no doubt why it is so largely taken by the poorer classes, and is one of the chief reasons for its administration by members of our profession. When I speak of wine as alcohol I am aware that some of its properties are due to other ingredients, as ether and many other subtle essences. This is especially so with champagne.

As time does not allow me to make the distinction, I must speak of alcoholic drinks as a whole, assuming that their great characteristics as affecting the human body are due to alcohol. This is more truly the case in England, where the stronger and fortified wines are drunk, but I by no means consider this statement as applicable to many countries where much lighter wines are consumed. I feel, indeed, that this constitutes a markedly weak part of my communication—the confounding of wines and spirits.

The great fact to remember about alcohol is its lowering the function of the nervous system, by which it gives repose to the body and a quietus to the mind, or as some say, the conscience. It is to produce these results that it is taken by the multitude. These medical men, who, according to preconceived or ancient notions have styled alcohol a stimulant, have really been watching its sedative effects, as, for example, when a patient with typhoid fever is benefited by an ounce of brandy, it is by its lowering the temperature and reducing the pulse. Thinking that this action of alcohol was not sufficiently recognised under the false name stimulant, I wrote



some years ago an article in a public journal to demonstrate it. I showed, for example, that if we go into a house when the whole family are grieving over the loss of one of their members, and we find they had all been imbibing spirituous fluids, the object is to drown their troubles in the bowl. It would be absurd for them to have taken a stimulant to excite greater manifestations of grief. The reason is not far to seek why a miserable wretch should spend his last penny on a glass of gin. He sits in his garret gazing at the naked walls, his weeping wife and starving shivering children around him. He would, were he able to, put another picture in its place representing comfort and happiness, but he has not the strength of mind to set about making the change. He swallows down a glassful of the anæsthetic liquor; a dissolving view immediately takes place, and all is changed. All is now *couleur de rose*, although he himself is a little stupid. I daresay many of my hearers have read an article by the well-known Russian author Tolstoi, on the evils of wine and tobacco as the great causes of crime and disease. Several distinguished French writers have commented upon it, but possibly the response of mankind generally may be found in that of Dumas fils. He says:—"The man drinks because it makes him cheerful and gives him forgetfulness or sleep. Who would not wish to forget the evil which he has done or the evil done to him by others? Those persons who have not had a happy life and do not reflect, find a glass of wine or a pipe a pleasant companion or trusty friend. They have had some disquietude or a troubled conscience, and the glass or the pipe put them into an agreeable frame of mind, and modifies the course and colour of their ideas, and may even give them imagination, eloquence, and courage. The priest may in vain promise eternity, or the philosopher in vain counsel imagination, but the little glass of *eau de vie* that burns, or the little packet of herb which ignites, procures for him at once, without his making the least

effort, what the one promises and the other counsels him to do. It is not complete felicity nor absolute forgetfulness, but is the dulling of thought, the obscuration of consciousness—a mental lethargy—before which realities continue to move without ceasing. Animals are happy, for they do not think at all. This is the depth of his reasoning and the conclusion of his philosophy."

It may be remembered that in the *School for Scandal*, when sitting down to the gaming table, Charles Surface says, "Let me throw in a bottle of champagne and I never lose—at least I never feel my losses, which is exactly the same thing. The reason for drinking is obvious; in small quantities wine takes away the sensibility, and thus annihilates trouble; in larger quantities or with spirits it produces complete forgetfulness. Its quieting effects are said to constitute its great value at the dinner-table. Both Matthew Arnold and Wendell Holmes upheld its advantages in this respect. Without it the guests would be quarrelling or keenly discussing religious or political subjects—with apologies to teetotalers—but wine comes in, rubs off the acerbities, and brings all down to the same level of good humour. For a time they are all in a happy frame of mind, and love one another. The writer of *Three Men in a Boat* said that a glass of wine often made him a better man than hearing a sermon.

It may be remembered that in *Julius Cæsar*, after Brutus and Cassius have been engaged in a violent altercation, Brutus exclaims, "Give me a bout of wine. In this I bury all unkindness, Cassius." The mention of Shakespeare naturally reminds me how this wonderful observer described the appearance of the drunkard, and had seen the effects of alcohol; for when the porter at the Castle of Macbeth says there are three things which drink especially provokes, and answers by saying, nose-painting, sleep, and urine, he was making a pathological demonstration on the blood-vessels, the brain, and the kidneys. He goes on further to say how it paralyses the



various functions, especially the sexual, by declaring that it "provokes the desire but takes away the performance; it makes him and it mars him. It gives him the lie and leaves him."

This, then, is the great central fact relating to alcohol—its direct and immediate effect on the nervous system, by diminishing and lowering the function. After a time it causes degeneration of the nerve centres, and produces a general paralysis; this is first observed by the trembling lips, shaky hand, and unsteady walk. The muscles themselves, too, undergo a change, and the heart often becomes fatty. The nerves become hardened and thickened from a neuritis, producing a painful paraplegia, more common in women than in men.

On the digestive organs the ill-effects of drink are only too well known—want of appetite, a loathing of food, and sickness. It has been stated that ulceration and thickening of the walls may result, but with this I have no acquaintance. Although the gastric disturbance is common enough, I am not familiar with any marked organic changes in the stomach which are evidently attributable to alcohol. In the same way as the stomach so does the whole intestinal tract show evidence of irritation by the diarrhoea.

The chronic effects of alcohol have been so largely written upon, and not long ago were the subjects of discussion at the Pathological Society, that I need not dwell upon them here. It has been thought that alcohol has a special affinity for certain organs, as the brain and liver, and is given off from the system by the skin, kidneys, and lungs. It is true that alcohol will produce degeneration of the brain and cirrhosis of the liver; but, as regards the lungs and kidneys, the statement is questionable. Dickinson, who made a series of observations on the subject, denied that there was any connection between drinking and kidney disease, and as corroborative of this I might say that everyone is aware how, in the cirrhosis of the liver of drunkards, the kidneys preserve their function; if it were not for this fact we should never relieve the patient of his ascites by

diuretics, which we are often able to do. As regards the lungs, there is a very prevalent opinion that drinkers are liable to chronic phthisis, some say to true tuberculosis.

One of the most important questions which has been discussed in reference to alcohol is the chemical change which it undergoes in the body. The failure of the physiologist to inform us of what becomes of alcohol after it enters the system has caused great diversity of opinion as to its mode of operation. It is a surprising fact that hundreds of thousands of gallons of spirit are annually poured down the human throat, and that no scientific man has yet informed us what positively becomes of it. If it were decomposed in the body there would be strong argument, many think, to regard it as a food or aliment; but others maintain that this does not occur, it is taken up in the system, and given off in its totality by the lungs, kidneys, or skin. The quantities, however, are so infinitesimal, that I think few regard this eliminative theory as proved.

The advocates of the two chemical theories correspond to those who maintain opposite opinions of the value of alcohol. If this be decomposed in the system, an argument exists in favour of its being alimentary, but what is a food? It is generally said to be a substance taken into the stomach, where it undergoes changes, and so is fitted to repair the losses of the organism, or at least to preserve it. Those who cannot see any resemblance to an ordinary diet in alcohol regard it as a food for the lungs, but this theory of Liebig is altogether wanting in proof. Todd thought it was changed into heat, and that it increased nerve power, strengthened the heart's action, and shielded the tissues from oxidation. We remain, therefore, still in ignorance of the behaviour of alcohol in the human system. We must be left to the practical inquiry as to whether we find it to be in any sense alimentary. On the one hand, no one has yet seen a person live upon alcohol, but there seems to be an overwhelming amount

of testimony coming within the reach of every medical man that persons taking large quantities of alcohol will preserve their weight with the minimum of food. This rather supports the theory that alcohol, like opium, tea, and some other substances, is not nutritive in itself, but prevents the wear and tear of the body. This, I believe, is the theory of Lionel Beale, which agrees with that of Todd; but it must be remembered that an opposite theory also exists—that alcohol acts as a spur to the nervous system, and quickly wears it out. It is a curious fact, and of which there seems good evidence, that although it impoverishes the system generally, it will, when taken in large quantities, produce fat. This is seen in a remarkable manner in atrophied children, as I shall presently mention. As regards the question of nourishment, I have only amongst my notes some old cases referred to by Anstie, E. Smith, Marcet, and others, at the time when I was interested in the subject. Amongst these I have the case of a man, aged fifty, and long intemperate. He took a pint of brandy a day, no meat, and very little of anything else. A woman, aged sixty-four, had been intemperate for thirty years; she took a pint of gin daily; she ate no food but an occasional biscuit. I think it is Anstie who gives the history of a man who for twenty years took a bottle of gin daily, with a piece of bread the size of his finger; he was thin but not emaciated.

Coming again to the practical question as to its utility when taken as an ordinary diet or a medicine, we must fall back on facts and experience. As before said, it is impossible to separate the question of diet and medicine, since so many persons take alcohol with their food, and yet regard it as a medicine. I suppose no one would cavil at the statement that persons in good health do not require any alcoholic drinks; also that children are best brought up without them; but it becomes altogether another question whether as we go on in years and have to live under artificial conditions, many of us passing very anxious lives, the use of

wine or a little alcohol may not be useful. In many cases where this is thought advisable it is owing to some deranged or sickly condition which does not belong to perfect health, and, therefore, although in such instances wine and spirits are spoken of as constituting part of the diet, they are really medicinal. The question, however, makes no difference as to the practical inquiry which daily comes from our patients, What shall we take to drink? For my own part, if I find a patient living without the use of any of these alcoholic drinks I should never, without some urgent reason, think of altering his course; or when I meet with a young man who says he takes a glass of beer twice daily, I generally advise him to continue it, for I regard him as a temperate man. I certainly do not do that which I find is a very common practice, to invariably stop a patient's beer, for I find if this be done he does not take water as a substitute, but has recourse to whisky if this be not suggested by the medical man himself.

I do not know much about the hurtful effects of beer in the lower orders, but I have observed the most temperate and long-lived people amongst them are those who say they take their glass of beer for dinner and supper. In the class of society to which we belong I find the beer drinker is generally a temperate man. They seem content with their beverage and have no craving for anything stronger. I do not put their lives before those of the congenital water drinker, but I do before the persons who have signed the pledge, because one is always a little doubtful about these gentlemen's or ladies' antecedents.

When I do recommend wine or a little spirits daily it is usually to quiet a perturbed nervous system. One example will suffice. An oldish lady had become very nervous, irritable and excitable, so that she could not fix her attention on anything. She was also sleepless, and had other symptoms which often precede an actual mental aberration or melancholia. Sedatives of all kinds had been given in vain, as their effect was only transitory. She

had been very abstemious and of late had taken nothing in the way of what is popularly called stimulants. The mention of the word alarmed her, as she did not want, she said, her nervous system further excited, but rather quieted. I urged upon her the value of taking a glass or two of wine or a glass of grog at night, hoping it might have the desired effect. After much entreaty she acquiesced and took the wine and spirit with good result, her nervous system became soothed, she slept better, and soon regained her health. I attributed the result to the wine, just as I should have done to any medicine which I had ordered her. In this particular case I should have liked to have discriminated between the pure wine and the small amount of pure alcohol which she took. I believe the difference between them is considerable, and I believe the mistake we make in placing them together is due to the language of teetotalers, who speak of spirits, wine, and beer as differing only in their degrees of poisonous qualities. I think this is a great error, for my own belief is that if a good wholesome national beverage of the malt liquor kind could be found a very large majority of persons would not take the stronger wines, much less spirits, and more good would ensue in the cause of temperance than by all the teetotal societies. But, as regards the value of wine as a medicine, one example amongst many, may suffice. A lady who seldom drank anything but water was asked in my presence to take a glass of wine, and she answered, "Not for the world." This of course made me believe she was a teetotaler. She declared she was not, but had so great a belief in port wine that she would not think of spoiling its effects unnecessarily. She said if she went home after a day's shopping in London with a violent headache a glass of port wine would immediately restore her; she therefore reserved so good a thing for special occasions. But, lately I was with a gentleman who had long been dyspeptic, and had been a prey to fears about his diet, complaining constantly of pain or disagreeable sensations about the

stomach and bowels. He had left off all wines, which he was told not to touch. A very superior glass of port wine was put before him, and in a few minutes he exclaimed: "That has done it; I have not felt so well for months."

If I had given him a dose of physic out of a bottle I should have attributed the effects to that. That good wine cannot have the injurious effects which some attribute to it must be concluded from the longevity of some of our ancestors, who were great wine-drinkers. Our President is acquainted with a gentleman, eighty-seven years of age, who is said to have opened his bottle of port every day of his life. This probably is an exaggeration, but during the fifty years I have known him he has drunk several glasses of port wine daily. I believe, therefore, that using such a term as poison to a drink of this kind gives rise to the remark that it is a very slow poison, and therefore real damage is done to the cause of temperance.

I know that the test of the value of wine and spirits cannot altogether be taken from the feelings of the patient, much less from the reasons given for imbibing. A list of these was once given in *Punch*, and I must say there was no guiding rule for their use. One man took a glass because he was merry, and another because he was sad; one man because a friend had come to see him, and another because his friend had left him; one because he had a daughter married, and another because he had a daughter buried; one because he had a rising, and another because he had a sinking, and so on. The test of one's feelings is most fallacious. It is different, however, when a glass of spirit, or glass of wine, is swallowed, and a headache or some other positive trouble immediately departs; and so precious to many persons are these things, that, although exceedingly temperate, they always keep them in their house in case of emergency, indeed, every now and then taking a glass of wine to soothe their ruffled nerves. It is difficult therefore to protest against the use of these drinks when persons declare



they are better for them, or even if they only say they like them. Only lately I was in the house of a clergyman, who had his nightly glass of grog on the table; a brother-clergyman, with a blue riband in his coat, came in and asked him why he took it. He answered readily and curtly: "Because I like it." "But don't you think it does you harm?" said the former. "Not that I know of," he said. "But do you think it does you any good?" "Not that I know of," he again said. "Then," urged the teetotaler still further, "why do you take it?" "For the reason I first said; because I like it," was the answer. It would be very difficult to say this gentleman did wrong if it made him feel more comfortable and happy and he was not aware that it did him harm. Abstinence as often practised by clergymen for example's sake, opens up another and a moral question.

The statement that alcoholic drinks shorten life is of course worth consideration; that, apart from any temporary good effects, all drinks containing alcohol, when long continued, are injurious; they may not, it is said, in moderate amounts produce any marked disease of any one organ, but they affect nutrition, and so, by depriving the tissues, shorten life. The statistics of assurance offices are said to show that total abstainers are better lives than moderate drinkers.

I think much larger numbers would be required before this could be admitted, but to my mind they are fallacious—not defining the moderate drinker. I can cast my eye around me and see several persons who were admitted to insurance as temperate people; their friends, no doubt, had never seen them markedly worse for drink, and they are not styled drunkards, but the amount of whisky they consume daily must be deleterious and shorten their lives. I am confirmed in this by a paper read before the American Association for the Study and Cure of Inebriety by Dr. Crothers, and found in the *Medical Temperance Journal* for last April. He says that insurance offices who

have a large number of risks, and declares that from a third to one-half of all the inebriates under his care have life policies. The result is obvious when a comparison is made between total abstainers and a class of persons amongst whom are many drunkards. Dr. Crothers says companies who admit moderate drinkers and leave the question of risks in these cases to the judgment of examiners will always have a large number of these dangerous risks and a larger mortality. What we want is a comparison between total abstainers and real moderate drinkers. Now I think we have this in the tables published by the United Kingdom Temperance Institution and the Clergy Mutual Assurance. Amongst the clergy we have abstainers and moderate drinkers, but very few intemperate lives, so that we may well compare them with the total abstainers. As far as I can understand the tables, the clergy, including the moderate men, have a slight advantage over the total abstainers. I know how difficult it is to rightly appreciate the value of figures, and therefore am ready to stand corrected, but my conclusion on reading the tables was as I have stated. If it were possible, I should like to see a comparison made between the lives of wine-drinkers and spirit-drinkers. If it were even proved that a few months' gain of life would be followed by totally abstaining, the argument would have little weight with the wine drinker; he certainly would prefer the shorter life if made more happy and comfortable by a glass of wine. If the prolongation of life by a very short period is the great desideratum, then no doubt many other luxuries might be given up, but the law of the greatest happiness for the greatest number governs the world. My late colleague, Dr. Moxon, in a paper which he wrote in the *Contemporary Review*, declared that the alcoholic question was not one of food only, but of one man's superiority over another. I do not know if degeneration of tissues resulting from alcohol would affect each generation in progression, as this idea would require some discussion of the



Darwinian doctrine; but, if true, the alleged results of assurance statistics would afford some corroboration to the theory that the shortened duration of life after the flood was owing to Noah, when "he planted a vineyard, and he drank of the wine and was drunken."

As regards its value in digestion it is difficult to come to a conclusion. That pure spirit or whisky aids digestion is by no means evident. There are many people who take it and maintain it is useful, but the actual proof is wanting. If this doubt exists it behoves the medical man to pause before he heedlessly orders it for every patient he comes across, to follow a routine plan of telling a young man to leave off his beer and take whisky instead. Constantly I hear complaints from patients on account of being obliged by their doctor's orders to take that "horrid" whisky, which they abhor. It is said that fashion rules in everything, but it is sad to think that fashion should guide us in our art, which is supposed to be based on scientific principles. Within fifteen years whisky has become the drink recommended by medical men to their patients. Is this a real advance in treatment, or mere fashion? Physiologists tell us that spirit retards digestion when experiments are made with it outside the body, but it does not necessarily follow that the same would occur in the living stomach. I have heard a markedly temperate man say that he takes a liqueur glass of spirit after his dinner, as it counteracts undue fermentation; at all events, he thinks so and feels the better for it.

I have rather fully spoken of the reasons which exist for drinking wine and alcoholic fluids, because by this means we get a real insight into their effects, and it is evident that the proposition is right that they have a sedative effect on the nerves and lower the function of the nerve centres. If this be so it is impossible that the opposite can be true, that alcohol stimulates the nerve centres and provokes them to increased energy and more work. Now, the consensus of all observers is that it markedly deprives

the nervous system of its force. Amongst labouring men, as well as amongst gentlemen engaged in sport or higher avocations, it is agreed that taking so-called stimulants diminishes their activities. There is the well-known experiment of Parkes with the spirit ration, in which it was shown that the men did more work without the spirit than with it. The Arctic expedition told the same tale; spirits did not at all assist the men in their arduous task of sledge pulling, so that they themselves discovered that a cup of tea did them more good than a glass of grog.

We must go back to the question, Is wine-drinking, beer-drinking, or a little spirit-drinking in moderation, useful to the community or not? Is it our duty, as medical men, to recommend it or denounce it? As regards pure spirit, I myself rarely recommend people to take it as an ordinary diet, feeling grave doubts as to its value. As regards the drinking of light wine or beer, when taken in moderation I do not object, and I find sufficient reason in the fact that the person likes it and believes he is better for it. Even should it stand on the same footing as tea or tobacco I should not forbid it. A well-known gentleman at the head of our profession, who has gone out of his way to preach temperance, and against the evils of drinking, yet finds that a moderate amount of wine at his dinner seems to do him good; and the late Dr. Carpenter, who published a book to show the evils of alcohol in all forms, yet subsequently took a little wine, declaring he was better for it. This, I should say, is at the end of the day when the work is over, and some amount of fatigue is felt. The wine then soothes.

This is a very different thing from taking these things earlier in the day for the purpose of assisting in the day's work. This they do not, and everyone should consider himself in a pathological condition who feels in early morn that he must have recourse to them. He is in a morbid state, and this is increased by the so-called stimulant. When exhausted and tired, however, at the end of the day, I do

not know any other test than that of the person's feelings, and if drink is no better in its nutrient effects than tobacco or tea little can be said against it. There seems scarcely a nation on the earth that does not like some sedative to act on the nervous system, something which quiets or soothes, the universal cry being that of the lotus eaters: "There is no joy but calm."

There is not only the alcohol in the form of spirit, wine, beer, or cider, but there is tobacco used by a large part of the world; opium by millions, as well as Paraguay tea and other vegetables. We have also tea, coffee, chocolate, largely consumed by persons because they enjoy them. I have a teetotal friend who is so attached to his five o'clock tea that he makes all his arrangements conformable to its celebration. No doubt many of these substances I have mentioned are injurious, and certainly so when taken above a certain amount, but the attempt would be purely quixotic or impossible to stamp out the habits of the people who indulge in them, especially if the livelihood of millions is dependent on their production, as vine-planting or hop-growing. If the world is to be regenerated the crusade must not be against alcoholic drinks only, but against tobacco, opium, and all these superfluous substances, until we get a regenerated people, of whom it may be said "their meat the fruits, their drink the crystal stream."

Now comes the important question of alcohol as a drug. I have no hesitation in saying that those who in times past gave it and found it useful were totally mistaken as to its action. They believed they gave a stimulant instead of a sedative, when they found it beneficial in such a case as fever with high temperature, quick pulse, &c. This mistake led it to be so universally given in all cases of disease. If alcohol gave strength there was no morbid state in which it was not useful, and it thus became the universal medicine. I remember a practitioner near Guy's Hospital, whom I frequently met, and having remarked to him that he had given brandy to patients with com-

plaints of a totally different character, he declared this was so. He gave brandy to all his cases, for he found all the Bermondsey people weak and required it. I should imagine that the same might have been said of other districts, and that all people who were ill were weak, and therefore required stimulants. It was about this time when brandy was the universal medicine that I set my face against it, and in spite of the statement that alcohol was an antidote to fever, showed by an array of figures and cases that typhoid fever would run as favourable a course without it. If a temperance hospital had been instituted in Todd's time it would have been of great value as showing his mistaken views about alcoholic treatment; but at the present time, when this is given up, little room remains for comparison.

At the present time, although this universal treatment by brandy is abandoned, there are a large number of medical men who hold fast to the old notion that brandy supports, and therefore if the patient be weak it should be given. For my part, I think the reasons for giving it are very erroneous. We do not yet know exactly the conditions of system which suggest its use. Some years ago the late Dr. Anstie believed that the sphygmograph would give certain indications for the employment of alcohol. At present its employment by the most judicious men is almost ignored, and they are certainly better practitioners than those who give it to every patient who has a weak pulse. One must have often seen two patients, apparently much alike as regards their state of debility, and yet one benefited by alcohol and the other not. For example, I have seen it given with the greatest success in some old persons with pneumonia, whilst it has failed to do any good in persons equally low with other complaints. In the late influenza epidemic, where patients have suffered much from broncho-pneumonia, the administration of whisky has been a universal practice; but the result has been so varied that I am not in a position to form a conclusion as to its value.

I think our knowledge of the use of alcohol in disease is almost purely empirical, having so few principles to guide us. I believe, however, the condition called typhoid is one requiring and benefited by alcohol—the case where the temperature is high, pulse quick, and delirium present. In typhoid fever itself we are constantly meeting with its beneficial effects. A little while ago a medical man asked me to see a case of typhoid with him. The lad had a severe attack, and was running on in the usual way when the fever became excessively high, with delirium, and he was questioning the propriety of giving wine or brandy. He therefore sought another opinion. I at once assented to its use, and a tablespoonful of brandy was given every three hours. After three doses the pulse was lowered by twenty beats, the temperature had fallen two degrees, and the boy's mind became clear. After this he made a good recovery. With results of this kind I cannot see with what reason alcohol is to be excluded from our list of drugs. It is difficult to see how any other conclusion can be arrived at than its being often beneficial. For example, a girl was in the hospital suffering from a most severe attack of typhoid; she grew worse until her end seemed approaching. When apparently dying brandy was administered, and this was continued for two days and nights until an enormous amount had been given; she then began to rally, and slowly recovered. Now, as regards the effects of this brandy upon her I see only three modes of reasoning: It did her good, it did her harm, it was valueless. Now I think few persons would say that giving two bottles of brandy in a few hours was of no importance, that its action on the system was *nil* and might be disregarded. It might then be said that it did harm, but in such a case as this there was only one step more to death, and this must have inevitably ensued had the patient got harm. The only alternative left is that it did good. Then, again, I believe the tolerance of a remedy is always taken as a measure of its need. We know iodide

of potassium produces coryza and headache in a healthy person, but in another who has a specific disease and requires it he grows daily better under its use; the same is markedly true of opium, digitalis, and all good drugs. I remember the case of a young servant-girl, who had never drunk anything stronger than water, coming into the hospital with most severe erysipelas of the head and face. She took a large quantity of wine and spirit without producing any apparent inebriety. I have notes of a case of an old man, aged seventy-two, with bronchitis, who took a bottle of brandy daily for seven days: it produced no intoxication, and he recovered. I was told of a case of flooding where a bottle of brandy was given in the course of two or three hours, and not the slightest inebriety was produced. In a case of typhoid, delirium ceased after 12 ounces of brandy had been given.

As regards the use of alcohol as a temporary restorative, the conditions of the case must be considered. In cases of fainting from a nervous shock it is, in my experience, the most speedy and powerful restorative. In collapse from hæmorrhage opinions seem to differ as to its value. I have always considered that it is inadmissible, seeing that with the fainting and lowering of the circulation coagulation takes place, and bleeding ceases, whereas alcohol rouses the heart to increased effort, which is often detrimental. I have myself always refrained from its use in cases of collapse from hæmatemesis or in hæmorrhage from typhoid. There might, however, be cases where its use might be of advantage. I have notes of a case related by Dr. Williams in an old number of the *British Medical Journal* where wine used as an injection seemed to have a most marked effect in restoring the patient. The case was that of a woman, aged forty, who, in her tenth labour, had a most severe flooding and fainted. The uterus was cleared out, and compresses laid on the abdomen, but the syncope remained. For half-an-hour she was quite pulseless, and the extremities



were growing cold, the skin bathed in a cold sweat, and she was quite unable to swallow. A large quantity of wine was thrown into the rectum, and the effect was immediate. In two minutes the pulse was felt, and in five minutes was clearly beating. The injection was repeated in twenty minutes, and in ten hours all anxiety was over. If any trust can be put in this story, surely wine as well as spirit ought to take its place in our list of drugs. In this case, although it roused the vital powers, it is still a question how far alcohol is useful in all cases of hæmorrhage. Amongst my notes I have recorded the case of a snake-bite in India, accompanied by collapse, where a pint of alcohol saved the life of the patient. Hyde Salter says large doses of brandy will sometimes stop attacks of asthma. I have also read the same about arresting the onset of ague. I have already said in the so-called typhoid state I believe alcohol is a most valuable remedy. In very bad cases my practice has been to give a tablespoonful of brandy every hour, and watch the results; if after a few doses the pulse and temperature are lower and the brain clearer, I feel sure of its benefits.

Heart disease is one of the affections in which much more careful observation is required in reference to the value of alcohol. In functional disturbance with irregular pulse, due often to dyspepsia, a glass of brandy-and-water will set it straight, but in many organic diseases the same remedy would do harm. I have seen several cases of mitral disease where the heart was most irregular and the pulse scarcely perceptible, at the same time the patient being in a state of great prostration, the continued use of so-called stimulants seemed loudly called for, and yet they only added fuel to the fire. Benefit was derived from their withdrawal, and in two or three cases where digitalis was substituted the patient made for a time a rapid improvement. I have not made up my mind as to the indications in heart disease which have made alcohol beneficial or otherwise. There is another class of cases in

which I see it harmful—the case of advanced heart disease, where the patient is dropsical, obliged to sit up in a chair, and with great oppression of breathing from engorged lungs, enlarged liver, and inactive kidneys. In such a case, because the patient is necessarily very low, the nurse is charged to give all the nourishment she can get into the patient, including a large amount of wine or brandy. He is already oppressed by gorged vessels, and now his blood is overcharged with material which he cannot use or get rid of. Under these circumstances, if the stimulants be stopped, the food reduced in quantity, and a purge given, the patient obtains very rapid relief. I have seen more than one person in this condition with his head hanging down in an insensible state, and his friends standing around, believed him to be dying when he has been simply intoxicated. Drunkenness in a person who is ill seems very difficult of recognition.

I might mention the fact, given on the authority of Mr. Brudenell Carter, that Dr. Braun, of Moscow, had 45 per cent. of bad cases after operations on the eye amongst the peasants until he gave them wine or brandy, when these cases fell from 45 to 6 per cent.

And now I must allude to the very striking and remarkable effect of alcohol in wasted children, the nearest approach to a proof that alcohol is nutritive. It was many years ago that I found alcohol in the form of brandy had a very remarkable effect in the case of atrophied children, and I therefore introduced it as a medicine into the pharmacopœia of the Infirmary for Children, Waterloo Road. There is a notice of this in the *Lancet* of January 27th, 1872. Under the hospital practice of Guy's Hospital is reported the case of a little boy, aged five years, who had entered the ward on October 25th previously, in a state of extreme emaciation. Finding no disease to account for it, I handed him over to the sister of the ward to treat by feeding. After some weeks he was no better, and so, on December 15th, I ordered him the mixture, containing a drachm of spirits of wine, four times a



day. He soon began to improve, and was markedly better in a few days, and strong enough to leave his bed. He then grew rapidly fatter as well as stronger, and at the time of the report, six weeks after the commencement of the treatment, he was an entirely altered child. The mixture consisting of spirits of wine, tr. cardamomi. and water, has been in use at the Infirmary ever since, and my successor informs me that it still keeps up its repute in these cases of atrophy. Its effect is certainly very remarkable. I must again repeat what I consider to be an essential fault in my paper, and that is, mixing up together spirits, wine, and beer, as if they were all alcoholic drinks differing only in degrees of strength. I have already mentioned cases of wine drinkers who have been very long livers, and were medical men here from wine-growing countries, they would not allow for a moment that the peasants who drank wine were anything but temperate, and would be indignant at their being placed on the same footing, even in a different degree, as spirit drinkers. Others would say the same of the moderate beer drinker.

From inquiries I have made there can be little doubt that there is less drunkenness in wine-growing countries than in others. Thus there is more drunkenness in the northern parts of Europe, where spirits are taken; and a French physician informs me from his own practical knowledge that he has seen much more intoxication in Normandy than in the wine region of Bordeaux. If this be so, it is quite confirmatory of what Adam Smith said more than a century ago. In his *Wealth of Nations* he says: "It deserves to be remarked that, if we consult experience, the cheapness of wine seems to be a cause, not of drunkenness, but of sobriety. The inhabitants of the wine countries are in general the soberest people in Europe; witness the Spaniards, the Italians, and the inhabitants of the southern provinces of France. On the contrary, in the countries which, either from excessive heat or cold produce no grapes, and where wine consequently

is dear, and a rarity, drunkenness is a common vice—as amongst the northern nations." This is a very remarkable statement, and has never been contravened. The idea of intoxication is not even understood by many peasants in these wine countries. It should therefore make us careful, in the name of temperance, in denouncing the inhabitants of wine-growing countries as addicted to stimulants; and we might have something to learn of the Irishman, who, after drinking largely of champagne, declared it to be a very "deceitful" wine.

I fear that those acting in the cause of temperance have done real harm by classing a number of things together as intoxicating drinks, and denouncing them as a whole. If logical and true to their cause, they would not apply their doctrine to England only, but in a true missionary spirit preach their gospel over the whole of Europe; but perhaps they see the immensity of the task, that they must induce millions of the peasantry of France, Spain, Italy and Germany, to give up their employment as vine dressers, and find some other industry. They must discover some other beverage for the inhabitants if they dislike water; in fact, they must produce a revolution amongst the people greater than any which has been before conceived. The political changes having to do with forms of government would be liliputian compared with the revolution in the manner and customs of countries which temperance societies would hope to effect. To upset opinions which have been held for ages would be no slight task, and especially when we have the voices of great physicians before us ever speaking of the value of wine. The succession has never ceased from Hippocrates and Aretæus downwards to our Sydenham. I will only quote one, Aretæus, who says, "In cases of great debility the only support is wine, to nourish quickly by its substance, and to penetrate everywhere, even to the extremities, to add tone to tone, and to raise the torpid pnuma, warm that which is cold, brace what is relaxed, restrain those portions which

are flowing outward. Wine being sweet to the sense of smell, so as to impart pleasure, powerful to confirm the strength for life, and most excellent to soothe the mind in delirium. Wine, when drunk, accomplishes all these good purposes, for they become composed by the soothing of their minds, are spontaneously nourished to strength, and are inspired with pleasure."

I believe myself that great harm has been done to the cause of temperance by denouncing beer, cider, wine, and spirits, as all bad from coming under the designation of intoxicating drinks. In the same way a medical man should discriminate between them when ordering diet, and also if he has to prescribe them as medicines.

And now, in conclusion, I feel that I almost owe the meeting an apology for the poverty of this paper. My only excuse is that the duty imposed upon me was to open the discussion. I should never have thought of demanding a hearing from you unless I had some good facts and observations to present to your notice—that is a truly scientific paper. At present I have been able to do little more than talk about the subject, and place its different aspects before you: its weakness in want of definition no one knows better than myself. My statements have been, then—that alcoholic drinks are not necessary to a large number of people; in fact, they are better without these drinks. As regards wine and beer, if taken in moderation, and liked by masses of people, I cannot disapprove from the existence of any apparent evil which results, and I am quite open to the correction that they may do good. As regards spirits or spirits-and-water as a beverage, I have by no means made up my mind that it is in any way useful, and seldom recommend it. As a medicine, I give both spirits and wine as restoratives and sedatives, and more especially as soothers to the nerves. I give beer in thin people to fatten them; in fever I give alcohol to reduce pyrexia, and in various other diseases, according to circumstances.

I hope to elicit from members some

important facts, so that we may discover what are the conditions which indicate the use of alcohol, and frame some principles to guide us. We may gain from all empirical knowledge, and learn in what diseases alcoholic drinks are useful and in what harmful. I now leave you.

The CHAIRMAN (Dr. Pye-Smith, F.R.S.), re-echoed the applause which had been given to the admirable paper to which they had just listened.

Dr. J. C. BUCKNILL entirely concurred in the principles and conclusions laid down upon that difficult subject by Dr. Wilks. He thanked him heartily for the un-alcoholic merriment and cheerfulness which his words had diffused through the meeting without the aid of champagne. He had read a paper on intemperance and insanity some years ago, and his conclusions on that subject were identical with Dr. Wilks', at all events with reference to medical disease. He was not prepared to criticise the paper, as he agreed with it *in toto*.

Dr. M. R. SKERRITT disagreed with Dr. Wilks as regards the effects of alcohol when administered in cases of typhoid fever. He did not believe that alcohol acted as a sedative. His experience in cases of typhoid fever where alcohol had been used, and where it had not been, was that the cases treated without alcohol did much better. That, he thought, would be the experience of them all. He remarked that he was a teetotaler, and, speaking of the effects of alcohol as a medicine in cases of mental depression, said it might be most excellent in many cases, but it was doubtful. His practice was to avoid the administration of alcohol in cases of mental depression and hysteria. There were some cases in which there was great danger to recommend alcohol. Referring to the remarks of Dr. Wilks as to the necessity of having a good wholesome national beverage, the speaker said he did not believe Dr. Wilks would say that our own beer was quite such a wholesome beverage as it ought to be, judging from its effects on the working population.

Dr. NORMAN KERR had looked forward to a paper of another kind. He thought the question discussed would have been alcoholism. The paper of Dr. Wilks was a most sensible one, especially in stating that alcohol was a sedative, and not a stimulant. He believed that Dr. Wilks's teaching, in spite of his advice as to the moderate use of beer, had struck a greater blow than many teetotalers against the very practice that he was commending. Dr. Wilks had stated that he knew a person who was eighty-seven years of age, and who used alcoholic drinks moderately. By the side of that he (Dr. Kerr) might say that he had three patients who were abstainers, and the older of the three was only ninety-eight years old, he walked twelve miles a day, and he had gone through a very arduous career indeed. Dr. Kerr proceeded to say that teetotalers were only using the language of scientific men when they said that alcoholic liquors contained poisonous properties. The question was whether it was safe to take a small dose of poison. He was not at all prepared to say there was harm in taking arsenic, or tobacco, or opium, as the conditions of proof were impossible. They could only prove the result in appreciable doses, and it had been proved over and over again by Dr. Parkes in his experiments with the soldier, whose pulse, after the administration of one ounce of alcohol, beat 1,872 more times an hour. In cases of hemorrhage his practice had always been to withhold all kinds of alcoholic stimulants, and he had seen few cases in which the administration of intoxicating liquor had been the means of saving the patient's life. He was in the habit of giving alcohol as a tincture, which was the best means of using it.

Dr. J. J. RIDGE said he felt that the discussion of this matter was no joke. It was a most serious question, upon which they must come to a conclusion—the sooner the better—and the fact of so many deaths occurring from the use of alcoholic drinks made one feel that a different course must be pursued in the future than in the past, or

else the state of things they all deplored would still continue. He wished to speak of the effects of alcohol upon the various tissues, and especially the nervous tissues, which made it such a serious matter for them all. One of its first and obvious effects undoubtedly was progressive paralysis of the judgment and of the will. They were often asked to point out what practical harm had been done by the use of alcohol, but they must wait until the end of life for that. They, however, could try experiments on other things, which he had done, and he now produced photos of two plants—grown under exactly the same conditions—with the exception that one was watered with water solely, and the other watered with water containing 1 per cent. of alcohol. The difference in the two plants was very marked. He had tried the effects of alcohol on the eggs of a blue fly, and he found that they would not develop so rapidly as those which were only kept moist. Dr. Ridge proceeded to say that the drinking of alcohol was like any other habit and could easily be formed. Vice was much easier than virtue, and could be easily spread; but it took a great deal of self-control to resist these things, and they looked to the medical profession to set the example of refusing to come under the influence of any kind of narcotic. He was quite willing for alcohol to be put in the pharmacopœia and prescribe it as a drug, and give it in medicine as they would opium, and he believed, if they watched cases, they would find better recoveries where there was no alcohol used.

Sir RISDON BENNETT spoke in favour of Dr. Wilks's paper. He stated that he was a moderate drinker, and spoke as to the beneficial effects of alcohol in some cases. He did not look upon alcohol as a poison, but objectionable in some cases and highly desirable in others. It was not desirable to lay down any broad principles with reference to the whole community as to the use of alcohol. He was exceedingly sorry that there had been a disposition to question the extreme value of alcohol as a



medicine in a considerable number of diseases.

Professor SEMMOLA, of Naples, referred to the sobriety of the inhabitants of the wine-growing countries in Italy in particular. Drunkenness among the wine-growers was extremely rare, probably owing to the fact that the wine they drink was purer, and that they did not drink more than was good for them.

Dr. C. R. DRYSDALE said he could not see how they could exempt alcohol from being one of the most dangerous articles of diet. In connection with insurance offices the universal conviction was that the man who abstained from alcohol had much better probability of longer life than the man who took it.

Dr. ALLFREY had had much experience in London hospitals and the country, and the result was that he gave alcohol very sparingly indeed. He entirely disapproved of the practice which was very fashionable in some quarters of ordering whisky. It was a very dangerous doctrine, and the profession ought to speak out loudly against it, as it was a growing evil.

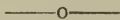
Dr. ROBERTSON thought that there was a great amount of good done by alcohol, but he thought what the profession ought to do would be to try and do their best to get a pure ale to

drink. Living in the country he knew a great deal about the adulteration of alcoholic beverages in every form, and it was a great shame that some companies should be allowed to sell as beer the trash which was supplied to the working classes. It was not beer at all.

Dr. ODELL was a teetotaler for example's sake, and he gave many striking proofs in his own life's experience of the work he was enabled to perform without the drink. He was much better in health, and could endure much more fatigue, since he had been a teetotaler.

Dr. CUMING had great sympathy with the teetotalers, but thought their cause had suffered through their rash statements. He considered it would be most dangerous advice to recommend alcohol in cases of nervous depression, and as to whether alcohol was a food he knew old persons who had got in such a state as to reject everything, but would very often be kept alive upon a moderate amount of stimulant.

In acknowledging a vote of thanks, Dr. WILKS said that thirty years ago he gave a lecture on temperance, and agreed with Drs. Skerritt and Cuming entirely. He was very pleased with Dr. Kerr, whom he considered a most temperate man, but thought Dr. Ridge went a little too far.



## ALCOHOLISM AND PUBLIC HEALTH.

In connection with the International Congress of Hygiene and Demography a debate was held on Thursday, 13th August, at Burlington House, on "The Relation of Alcoholism to public Health, and the Methods to be Adopted for its Prevention." Great interest was evinced in the subject, the room being well filled with medical men and others representing almost every country in Europe.

Sir DYCE DUCKWORTH, LL.D., M.D., of London, in introducing the subject, said that all matters relating to the question of the employment of

alcoholic drinks are and must be of the highest importance to those interested in the progress of humanity. He was not there as the exponent of any particular party, or as an apologist for any particular line of practice. The opinions he was going to express were the outcome of his own observation, and of an endeavour to find working principles. His remarks would no doubt meet with considerable opposition, but he was not there to please any party or any one in particular, simply to state what he believed to be true. It was, however,



very fitting they should discuss this matter at the British meeting of this Congress. There was reason to believe that both in France and in Belgium a great increase in alcoholic consumption had taken place during the last quarter of the century, while other countries had had happier experiences. The standpoint from which he was compelled to study all phases of this question was in the light of a physician with the experience of the effects of all forms of disease caused by alcoholic consumption. Such experience gained in London should be worth something, but, when added to that was an experience gained in almost all parts of the world, the worth of it was greatly increased. He claimed a very important place for the opinions of trained medical observers respecting the use and abuse of alcohol. The speaker then went on to say he was far from considering the employment of alcohol as an unmixed evil in this world. He believed its use on the whole to be beneficial to humanity. But that was not what they had to discuss. They were there to consider the effects of the misuse of it, and to find the best methods of dealing with such misuse. They acknowledged all forms of intemperance to be bad, and alcohol was only one. They did not blink the fact that alcoholic excesses brought perhaps more disease in their train than others, but it was no more possible to abolish alcohol than to abolish bread and butter. The question in his opinion resolved itself into one of general progress in civilisation. He saw no reason for despair or hopelessness, but he believed progress would be made in the future, as in the past, surely, though slowly. Populations were practically everywhere on the increase, the means of locomotion were on the steady increase, and the means of procuring alcohol was on the increase, and yet, notwithstanding these facts, drunkenness was not increasing, but diminishing. The speaker then referred to the moderate use of alcohol, and said that if all that had been asserted as to the harmful effects of alcoholic consumption were true the finest races

on the earth would ere now have been exterminated, citing as an instance the Hebrew nation, which had always used alcoholic liquors. As medical men, he said, they did not approach the question with any particular bias, and were not led by intimate knowledge of all forms of alcohol and degrees of abuse to entertain horror of it. There was neither sense nor reason for taking up such a position. The abuse of anything in any degree constituted a departure from laws which to secure health must be obeyed. They as physicians, therefore, were bound to realise the legitimate use of alcohol. He had known life kept up by the use of alcohol. They found the greatest number of the best men and women doing the best work in this world taking some form of alcohol with benefit to themselves, and they found a much smaller number of persons who could do better without it. There were a very few persons, he said, who never attained their best health till they ceased to take the very little they had been accustomed to take, but this was an idiosyncrasy, not a law. He knew of no evidence to prove that moderate quantity of alcoholic liquid taken with other food was injurious to the best health of the human body. The utmost limit of alcohol in any alcoholised drink that should be taken in one day he put down at 1 oz. or 1½ oz., which should be consumed with a meal, and as a rule when the day's work was done. None should be taken between meals. Much depended upon the habits and personal peculiarities of the person, but such a moderate amount of alcohol was in his opinion not only harmless but possibly beneficial. The speaker then referred to the argument that abstainers were always safe, and could never misuse alcohol. If this declaration, he said, referred to healthy persons he could not agree to it, nor to the view that regarded all alcoholic liquids as dangerous. His opinion was that alcohol was a good gift to man, a good servant, but a bad master. He conceived of man in his highest civilisation as able to keep the moral laws without it being necessary or desirable

to deny any lawful appetite. He had long been convinced that total abstinence from alcohol for its own sake and as an example to others was no remedy for careless and vicious indulgence. The abusers took little or no heed of such an example, but for those who had no control over themselves and were wont to misuse alcohol there was no doubt about the propriety of abstinence. But this brought them face to face with vice and wrong doing that called for special consideration. Drunkenness was certainly the parent of teetotalism. Children, he said, in health required no alcohol. It should be a penal offence to supply any alcoholic liquors to anyone under the age of puberty. We were all descended from an ancestry which had used alcohol more or less, and the habit had been woven into us, and in itself he did not believe it was a bad one at this stage of our civilisation. The anæsthetic qualities of alcohol promoted cheerfulness and greater ability therefore to carry on the world's business. Its use, however, should be strictly confined to meals, any person requiring it between meals must be regarded as a sick person requiring medical care. The speaker then gave what he considered the three main points respecting the use of alcohol:—First, that little should be taken; secondly, that in whatever form it is taken it should be good of its kind; and thirdly, that it should only be taken with meals. He said he offered no apology for stating what he believed to be true—but he wished it to be clearly understood that his remarks gave no authority whatever for the misuse of alcohol. The vice of intemperance he said it was an appalling matter, and especially because it led too often to the nervous disease of inebriety. He believed that that nervous disease was sometimes the result of ancestral alcoholic abuse, and in such cases they had practically to deal with a form of insanity for which the sufferer was no more to blame than a lunatic. The public and the magistrates were incapable of making a discrimination between this class of person and the careless

and vicious drunkard. It was true that the careless and vicious drunkard might occasionally become an insane and irresponsible one. It was, however, to be hoped that, with the spread of knowledge, alcoholic intemperance might become to be regarded as a vicious thing, and he (the speaker) would gladly support some more rigorous form of punishment for the vice of occasional intemperance than could now legally be applied; and inasmuch as many careless and vicious drunkards could not be made to smart in their consciences, he would advocate, in the case of men, the use of corporal punishment, and he held that the electoral franchise should be withdrawn from drunkards after the second conviction. The habitual drunkard was on all hands recognised as a pest of society, and was practically an insane and mischievous individual. He knew of no means for the reformation of such persons, and the prospects of their ever getting over the habit were very remote. The prospects in the case of female inebriates were notoriously less than in the case of males, reformed female inebriates being very seldom met with. The children of drunkards, he said, should never take alcohol. He was in favour of a measure of local option, limiting the number of public-houses, with a much more rigid supervision of the conduct of the persons who conduct and frequent such places, and that they should be compelled to close earlier in the evening than is now the case. He trusted more, however, to the spread of education, to the influence of strictly temperance habits, and most of all to the spread of Christian principles and the simple fear of God in men's hearts. No legislation was likely to be so effective as that. Such was the faith of the great profession he represented. On one occasion when he had been expressing this view, a German gentleman had come to him, and, after thanking him for the expression of his opinion, said that the German doctors had no faith at all. Thank God they had it, and they meant to hold on by it. It was

good for their forefathers, it was good for themselves, and it would be good for those who came after them. It would help them to do their work, and guide them in carrying out all needful reforms. The speaker, in conclusion, said it was his firm conviction that legislative measures in respect of abolition were both ineffectual and undesirable, not warranted by experience, nor likely to promote the highest good of humanity. Many enthusiasts and laborious workers would disagree with him, but he could only say he for one was as much in earnest as any of them could be. Let them be thankful for earnestness anywhere. Better to be earnest than indifferent. Better still he thought to be free and yet sober.

Professor WESTERGAARD, of Copenhagen, then read a long and exhaustive paper, which was listened to with great interest and attention. He was at considerable pains to show that the mortality from alcoholism was very much less in countries where legislation was strict, than in those countries where alcohol could be procured easily and cheaply. He said that among the males in Denmark above twenty years of age from 5 to 6 per cent. of the deaths registered during one year were from delirium tremens, chronic alcoholism, and sudden death in drunken fits. It might be assumed, however, that the losses of life were much greater even than this, because the wish to spare the feelings of surviving relatives would be calculated to make the returns less trustworthy, and other diseases would be named as the cause of death, such as liver disease. Again, he had found that out of 100 suicides forty-four of the persons were notoriously given to drinking. The speaker then compared the effects of alcoholism in Denmark with that of Norway, and said that whereas Copenhagen had a public-house for about every 300 of the inhabitants, Christiania had only one public-house for the sale of spirits for every 5,000 inhabitants. In Christiania during twenty years only seventy-six deaths had occurred from alcoholism and delirium tremens, sixty-five being among males and eleven among

females. In Christiania the death-rate from alcoholism among males had been only two-thirds per cent., whilst in Copenhagen it had been 5 per cent., and while suicides in Christiania were only 2 per cent. of the deaths among adult males, the corresponding figure in Copenhagen was 4 per cent. These facts spoke very clearly of the effectiveness of the measures adopted in Norway, which had reduced the quantity of spirits consumed in the country to one-fourth of what it is in Denmark. In most countries, he said, statistics of the causes of death did not allow conclusions with regard to the true effect of alcoholism, but at all events the statistical data was sufficient to show that a great part of the civilised world was suffering greatly from the effects of alcoholism. Undoubtedly they would find, if reliable data could be had, that chronic alcoholism and delirium tremens alone kill many thousands of men every year. What was to be done? He thought that if the only result of this discussion were that the medical profession in all civilised countries were carefully to register all cases of alcoholism within their reach they might congratulate themselves that nothing would serve better to open the eyes of the public. Medical men had it in their power by such investigations to render to society an invaluable service. The speaker then referred to private efforts for diminishing alcoholism through public coffee rooms, temperance societies, Bands of Hope, &c., and said these efforts had undoubtedly saved many persons and families from moral, physical, and financial ruin, and they were also necessary to quicken public opinion against strong drinks and prevent the laws against intoxicating liquors becoming a dead letter. Homes for the cure of habitual drunkards would prove useful if properly managed. It had been proposed to deprive drunkards of their freedom in financial matters by declaring them minors, and this, in addition to other matters, might help to create a public opinion against alcoholic excess, as well as the proposed alterations in the criminal



laws. High excise duties were generally looked on as an excellent weapon against alcoholism, but the high excise in England did not prevent spirituous liquors from coming within the reach of anybody so long as the number of public-houses were so large. If a person had to go a long way to get drunk, and if in addition he had to pay a good sum for it, he would stop to think before going. In connection with excise every effort was to be commended which tended to render access to intoxicating liquors more difficult. The speaker then referred to three popular American systems which he thought were worthy of attention, viz., the "Maine Laws," local option, and the high license system, which had all been effective to a certain degree. Still more effective had been the efforts in Sweden, Norway, and Finland, where the Gothenburg system had been introduced. According to this system all or most of the licenses in a town were given to a company which was not allowed more than a fixed rate of interest, the surplus being spent for the benefit of charitable institutions, and forming part of the municipal income. The result had been a great reduction of the number of drinking bars. Moreover, there was a limitation of the hours during which the saloons were allowed to be open, and in Norway the sale of spirits was forbidden even from Saturday afternoon till Monday morning. None of the recommended expedients, he knew, would prove quite exhaustive. Every country would show alcoholism and delirium tremens as causes of death. Drunkards would exist even where it was very expensive to get drunk, and the opening hours of public-houses very few, but the combined action of such measures would at all events be a great saving of life and a great diminution of misery.

M. MILLIET, of Berne, who spoke in German, said that from the scientific standpoint the State had no right to interfere, and from the practical standpoint it had no power to do so. He could not find that there could be any objections, either religious or

legal, to the proper use of alcohol. But the excessive use must be checked, and the people protected against the offender. He thought that a distinction should be drawn between the use of distilled liquors and the use of fermented liquors, as the latter produced so much less harm. M. Milliet believed that measures of local option, as recommended by Sir Dyce Duckworth, might be of some use, and thought that the chief centres of drunkenness must always be small private drink-shops.

Dr. NORMAN KERR, who was next called upon, said he had estimated the number of deaths prematurely occurring in the United Kingdom of Great Britain and Ireland every year at 40,000 from personal intemperance. To this direct annual premature fatality of 40,000 inebriates, there must be added double that number of deaths of individuals occurring, not directly from their own habits, but indirectly, through accident, violence, starvation, neglect, and disease occasioned by the alcoholic indulgence of persons other than the slain by alcoholic poisoning. A terrible slaughter truly, and achieved at great pecuniary cost. The average worth of an adult to the community had been reckoned at 2s. per day. Deducting Sundays, this made £31 6s. per year (313 days at 2s.). If they allowed five years of working capacity on an average to each adult life thus cut short, this would give £160 as the current value of each life; 40,000 lives prematurely lost from inebriate addiction at £160 per head would amount to £6,400,000 of wealth lost to the nation every year from alcoholic personal excess. The waste from alcoholic disease, over and above the waste from alcoholic deaths, was most serious. There were generally acknowledged to be at least thirty-nine cases of non-fatal disease to each case of disease ending in death, with (as they had seen) an average value to each individual of 2s. per day. The average duration of each such illness was eighteen days. The 40,000 deaths prematurely happening through the alcoholism of the deceased, multiplied by forty, gave



1,600,000 as the total number of illnesses yearly. This, multiplied by eighteen (the average number of days in each illness, gave 28,800,000 days in each year, during which adults were incapacitated for work from alcoholism. At 2s. per day, there would therefore be a money loss during the twelve months, from alcoholic intemperance, of £2,880,000. This was but the threshold. They, as medical men and social reformers, were bound to look to posterity. It would be more difficult for the children of the next generation and the next to that to keep moderate drinkers than it was for them. The most distressing part of it was that this disease and death and mischief was avoidable. The question was, how could it be remedied? First, by recognising inebriety (or, as he would venture to call it, "narcomania") as a disease. He meant a mania, not for beer or cider, but an intoxication mania, which was an overpowering and irresistible desire for intoxication by any kind of anæsthetic. It had been said to-day that women inebriates were practically incurable. He did not agree with it, for he knew of numbers of women inebriates who had been reclaimed, and were now filling posts of trust and honour. The experience of the Dalmryple Home for Inebriates had proved that a fair number of such cases could be cured. The present method of dealing with it was unfair, because there were many inebriates who, from their morbid state, could not possibly refrain from drunkenness when at liberty, or resist the abounding temptations to drinking which the Legislature surrounded them with. In fact, the Legislature made and kept them inebriates, and punished them even with death, if they, without criminal design or actually unconscious of the act, committed a criminal offence, either in an intoxicated or post-intoxicated state. Our present judicial process simply rewarded the shattered drunkard with the healthful conditions of one of Her Majesty's teetotal club-houses for inebriates, and rehabilitated them for re-awakening, with re-awakened vigour,

their former intemperate career. The evil could also be remedied by amended legislation (the existing Inebriates' Acts applying only to well-off inebriates voluntarily asking to be admitted to a licensed retreat, under the forbidding requirement of appearance before two justices) to provide for (a) compulsory reception and retention of inebriates too demoralised to apply of their own accord; (b) for reception of voluntary applicants on a simple agreement, without appearance before justices; (c) for the care and treatment of the poor and those of limited means. It would be well also for guardians to have power to pay for the care and treatment of pauper inebriates, and the authorities to establish special hospitals for the detention and treatment of inebriates convicted of crime. Our criminal jurisprudence should be improved so that the most destitute could have the benefit of expert medical testimony in trials complicated with inebriety. The adoption of such urgently called for measures in the interests of the individual, of the community, and of the administration of justice, though of vital importance, touched but the fringe of the subject. For the prevention of alcoholism in the future, a knowledge of the poisonous action of alcohol on body and on brain ought to form an integral part of education. Immunity from the physical, mental, moral, and social ravages wrought by alcoholism, could be eventually secured only by general abstinence from even the "limited" use of intoxicants; their exclusion from social, political, and sacred functions; and the scheduling of alcoholic beverages as a *poison* under Pharmacy Acts, or by some other legislative enactment, the prohibition of their manufacture and common sale. They might, however, legislate as much as they liked, but as long as the State, the Church, and society, encouraged intoxicating liquors, they would battle in vain. They had heard to-day of Maine. He had had ten years' experience in the State of Maine, and in those ten years he had never seen but one drunken woman, and that was not in the street. They had got to deal with a law of

nature, and that law was that there was a tendency in all narcotics to lead to a diseased desire for them, and wherever they had any kind of intoxicating agent they had an element of disturbance.

Sir JOSEPH FAYRER said he had no special knowledge upon the subject except that which must necessarily be gained by a physician who had practised the art for more than forty years in almost all parts of the world. He did not advocate total abstinence from alcohol; what he did advocate was temperance in its strictest sense. He advocated that men, women, and children, should be so educated and trained that their own judgment would enable them to be kept from excess of this kind. He agreed with Shakespeare: "Good wine is a good familiar creature," but he did not agree that it was well in any sense to abuse it. He believed that every human being found out sooner or later what was good for him. The speaker then dealt with the effects of alcohol in tropical climates, and said he was constantly being asked by young men who were going abroad whether it was necessary to drink. His answer was most emphatically that it was not necessary. A young man who goes out to India or any other tropical country, and neither smoked nor drank, was doubly armed against the climate and all other evils. To middle-aged men, whose habits were formed, he said nothing to disturb those habits, so long as the amount taken was moderate, and attended by no ill result. He would, however, sometimes warn these that a need for the support of alcohol was sometimes one that grew insidiously and rapidly. In conclusion, he was glad to learn from so eminent an authority as Dr. Norman Kerr that cases of habitual drunkenness were not so hopelessly irreclaimable as was generally believed. He had not had many opportunities of seeing this, but from what experience he had had he was convinced that if alcohol could be absolutely withheld from such people the majority of them would recover. The speaker then referred to the case of a man

during the siege of Lucknow, who had fallen into the habit of drinking to such an extent, and under such circumstances, as to leave very little hope of ultimate recovery, but who had yet been restored and had become an abstainer. In referring to the methods for the prevention of alcoholism, Sir Joseph Fayrer said he feared it was quite impossible by legislation to prevent people taking alcohol. He thought, however, there was already a voluntary tendency to diminish drunkenness. He did not see so many drunken people in the streets now as he used to see before he went to India. He agreed with Sir Dyce Duckworth that everything possible should be done to restrict the sale of alcohol, but not to prohibit it altogether; to discourage people from taking too much alcohol, and to impress upon the young that it was not a necessity to their existence in any part of the world, but that the longer they did without it the better it would be for them.

A paper by Mr. John G. Phillips, read by Mr. W. BINGHAM, went to show that the mortality of abstainers had been proved by the Sceptre Life Office to be much lower than for non-abstainers. The number of deaths for the seven years ending 1890 was 527 in the general section, and 174 in the temperance section, being a percentage of 77·61 in the former, and 56·86 in the latter. Up to the end of 1888 the number of policies issued by the association was upwards of 20,000, of which 11,227 were in force at that date, 6,700 being in the general section, and 4,527 in the temperance section. The latter were now gaining ground much more rapidly than formerly, as out of 4,112 policies issued since 1885, 2,404, or upwards of 58 per cent., were in that section.

Dr. HEWITT, of Minnesota, briefly gave his experience as an American health officer. He did not believe in prohibition, but in making the way of the drunkard difficult for him, and in putting out indirect inducements to sobriety. He thought the Maine law a failure, but spoke very

favourably of the efforts of American ladies, whose tact and persistency had done more than their arguments to advance the temperance cause. The foreign population was the great difficulty in America, but their children were not so much addicted to drinking as their parents, owing largely to the temperance instruction imparted in schools. He thought there was not much force in the outcry against adulteration, and said that alcohol was the great danger.

Professor ALGLAVE, of Paris, said that there was no use to attempt to contest the fact that immense evil followed the abuse of alcohol, but he considered that all attempts to suppress its sale must be unsuccessful. He did not think that sufficient attention was paid to the fact that it was not the quantity of the liquor, but its quality, that generally did the mischief. There was a practical step that could be taken, The State might insist that the quality of drink supplied should be good.

Dr. KINHEAD (Galway), who followed, said that he agreed with Dr. Norman Kerr that inebriety is a disease, and not a purely voluntary and moral offence. It followed, therefore, that legislation could be directed against it, whereas it was well-known that it was useless to attempt to legislate against moral offences. It has been considered to be the inalienable right of every Briton to get as drunk as he likes, when he likes, and where he likes, and the law cannot punish him unless he does some mischief. Such a law is cruel and silly. With regard to the taking of a pledge, he was not a great advocate of the value of such a proceeding. To keep the pledge when taken was a daily strain upon the will power, and it was this will power that was so weak in these people, while a broken pledge was a shock to the moral system, which might lead to a worse state. The pledge is, however, useful and even necessary (1) where a tendency has already developed for drink; (2) where the neurotic tendency—hereditary or otherwise—is believed to exist; (3) in the young, whose ideas and habits

still have to be developed. He concluded by stating that he agreed with Sir Dyce Duckworth in his view that the sale of liquor to children should be penal; he thought that parental protection was often inefficient; punishment, he held to be proved to be no remedy for the vice; there should be asylums established for inebriates.

Dr. ISAMBARD OWEN said: I am taking part in the debate not because I have any new facts to communicate, but because what I have already written on this subject has been more often quoted than read, and most often quoted in an utterly misleading manner. I am the author of the "Collective Investigation" Report of the British Medical Association on "The Connection of Disease with Habits of Intemperance," published in 1888, which contained a now famous table of figures, quoted, as it has been, from newspaper to newspaper, entirely apart from its context, and often with supposed "conclusions" tacked on to it for which I am in no way responsible. It has been over and over again represented in speech and writing that, upon the authority of this report, the longevity of abstainers is below that, not only of moderate users of alcoholic liquors, but even of the decidedly intemperate. Permit me to say, by no means for the first time, that no such conclusion is contained in the report, that no such conclusion is deducible from the figures in question, and that this is clearly stated in the text of the report itself. Its actual conclusions, as far as they concern the general public health, are verbatim as follows:—

"1. That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.

"2. That of men who have passed the age of twenty-five, the strictly temperate, on the average, live at least ten years longer than those who become decidedly intemperate. (We have not in these returns the means of coming to any conclusion as to the relative



duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.)

"3. That in the production of cirrhosis and gout alcoholic excess plays the very marked part which it has long been recognised as doing; and that there is no other disease anything like so distinctly traceable to the effects of alcoholic liquors.

"4. That, cirrhosis and gout apart, the effect of alcoholic liquors is rather to predispose the body towards the attacks of disease generally than to induce any special pathological lesion."

Whether we have, from other sources, the means of comparing the longevity of abstainers and temperate drinkers, is a point I will not now attempt to discuss; but, as far as my personal experience as a physician goes, I feel bound to say that, putting aside the subjects of actual disease, I cannot recall having ever seen either man or woman appreciably the worse for being a total abstainer.

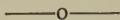
Sir V. K. BARRINGTON (member of the London County Council and the Metropolitan Asylums Board) said the insanity of one-half of the patients that were discharged as cured from the asylums under the control of those two bodies had a distinctly alcoholic history, and of the children coming into their schools nearly all were orphans or destitute through the drink-

ing of their parents. He was in favour of secluding the victims of inebriety, but it would be difficult to enforce, in consequence of the enormous cost, and he strongly upheld the Norwegian restriction system, which had transformed that country from the most drunken to the most sober nation in Europe.

Professor F. C. ROBINSON, of Maine, member of the State Board of Health and State Assayer of Maine, said that he wished to correct some mistakes he had listened to in the papers and discussions in reference to the "Maine Law." He believed that the Maine law was a just and an honest attempt to meet the great problem of intemperance, and had achieved a success far beyond the general belief of students of hygiene.

Dr. ARTHUR, of London, maintained that alcohol was not a food, but an irritant poison, and the idea that it was an article of diet had been overthrown by recent scientific research. All children in schools should receive instruction in this subject, and be taught that alcoholic liquors were not only unnecessary but harmful even in small doses.

After a few remarks by Dr. SONSINO (Pisa) and Professor BOHMERT (Dresden), the discussion, which lasted rather more than three hours, brought to a close.



## AN AMERICAN MEDICAL CONGRESS.

THE International Medical Congress, held at National Prohibition Park, on Staten Island, New York, on the 15th and 16th July, was attended by eminent practitioners of all schools and from all sections of the country, the number from the Western and North-western States being particularly gratifying.

There was unanimity of opinion that alcoholic beverages are always injurious to a healthy organism, and that when used in medicine they should be prescribed with great caution, and only in cases of emergency. Most of the

doctors declared that a careful and thoughtful physician could find many comparatively harmless substitutes for alcohol and its compounds.

Dr. N. S. DAVIS, of Chicago, was elected chairman, and delivered the following address: "Why does an intelligent and free people continue to spend such enormous sums of money for drinks that so plainly bring nothing but evil in return? I answer, first, because of the erroneous education of the greater portion of the people in regard to the true nature and effects of alcoholic drinks when taken into the



human system; and, second, because of their power to pervert the sensibility of the brain and nervous system, and thereby develop the most fascinating and persistent mental delusions.

"A large majority of the inhabitants of every country receive the most influential and enduring part of their education, not in the schoolroom or from books, but from the opinions, maxims and practices, that they hear and see from infancy to adult age in the family, on the street, and in the social circles of the neighbourhood. From a very early period in the history of these drinks, before chemistry had separated and revealed the nature of the active ingredients that pervade them all, the people, judging only from the sensations and actions induced by their use, were very generally persuaded to regard them as stimulating, warming, soothing, and restorative. Consequently they speedily found their way into almost every household in Christendom, and were ever ready to relieve the baby's colic, to enable the mother to give more milk, to relieve the father's weariness, and to prevent the boys and girls from 'taking colds' when exposed to wet or cold weather; and, of course, doctors, priests and people, all united in calling them tonics, stimulants, and restoratives for the body and soothing exhilarants for the mind. And it is true that these same designations and the ideas conveyed by them are still dominant in the family circles, the highways, and the newspapers of this and other countries. Even the great majority of medical men still contribute their full share to the support and perpetuation of these very general and destructive popular errors, by habitually using the same language and sanctioning the same practices regarding them.

#### DESTRUCTIVE POPULAR ERRORS.

"I call them destructive popular errors advisedly, because the abundant results of their use in every circle or grade of human society, and because the most rigorous, varied, and skilful scientific investigations, have both demonstrated that no form of alcoholic

drink is capable of either warming, strengthening, nourishing, or sustaining the life of any human being. I presume many of those who are listening to me will regard this as an extravagant statement, more especially as they remember the many nursery and newspaper stories they have heard concerning sick persons who were alleged to have been kept alive on nothing but wine, brandy, or whisky.

"The falsity of all such stories is made apparent by the fact that nineteen-twentieths of all the alcoholic drinks given to the sick are given in connection with sugar, milk, eggs, or meat broths, which furnish the nutriment and would support the patients better if given with the same perseverance without the alcohol than with it. It is true that chemical analysis detects the existence of some gum, sugar, and starch or fecula, in the fermented liquids, beer and wine, which may be classed as nutriment. But the proportion is so small as to be of no appreciable value. Baron Liebig, one of the most eminent chemists of Germany, has left on record the statement that 'If a man drinks daily eight or ten quarts of the best Bavarian beer, in the course of twelve months he will have taken into his system the nutritive constituents contained in a five-pound loaf of bread.'

#### ALCOHOL NOT NUTRITIOUS.

"If a man must take a whole year and drink twenty-three barrels of beer to get into his system the 'nutritive constituents contained in a five-pound loaf of bread,' it is certainly not sufficient to be worthy of the slightest consideration as food. But, if you keep in mind the fact also, that the person who drinks at retail the twenty-three barrels of beer at five cents a pint, pays about 300 dols. for it, and takes into his system during the same time about one barrel of absolute alcohol, you will be able to see clearly the supreme folly of calling malt liquors and wine nourishment. The only ingredient in the various malt liquors, wines, and distilled spirits, that is capable of exerting any important influence on the living human system, is

the alcohol they contain. This alcohol is exclusively the product of vinous fermentation, a retrograde chemical process by which sugar or saccharine matter is converted into alcohol, averaging in beers 4 per cent. and rising in wines to 15 per cent., and in the distilled liquors to 50 or 60 per cent. Consequently those persons in this country who drank the 70,000,000 gallons of distilled spirits, the 40,000,000 gallons of wine, and the 800,000,000 gallons of malt liquors during the year 1890, received into their stomachs and blood not less than 80,000,000 gallons of absolute alcohol. And now comes the question of more importance to the human race than any other of a temporal nature, namely, What are the actual effects of this alcohol on the living human system?

#### SOME OF THE DIRECT PHYSIOLOGICAL EFFECTS.

"By all chemists and other scientific men it is classed as an active poison capable of speedily destroying life when taken in sufficient doses; and if taken pure or undiluted it destroys the vitality of the tissues with which it comes in contact as readily as creosote or pure carbolic acid. When largely diluted with water, as it is in all the varieties of fermented and distilled liquids, and taken into the stomach, it is rapidly imbibed or taken up by the capillary vessels and carried into the venous blood, without having undergone any digestion or change in the stomach, and made to penetrate every tissue of the living body, where it has been detected by proper chemical tests as unchanged alcohol, until it has been removed through the natural process of elimination, or lost its identity by molecular combination with the albuminous elements of the blood and tissues for which it has a strong affinity.

"The most varied and painstaking experiments of chemists and physiologists, both in this country and Europe, have shown conclusively that the presence of alcohol in the blood diminishes the amount of oxygen taken up through the air-cells of the lungs; retards the molecular or metabolic

changes of both nutrition and waste throughout the whole system, and diminishes the sensibility and action of the nervous structures, in direct proportion to the quantity of the alcohol present. By its strong affinity for water and albumen, with which it readily unites in all proportions, it so alters the hemaglobin of the blood as to lessen its power to take the oxygen from the air-cells of the lungs and carry it as oxyhemaglobin to all the tissues of the body; and by the same affinity it retards all atomic or molecular changes in the muscular, secretory and nervous structures; and in the same ratio it diminishes the elimination of carbon-dioxide, urea, phosphates, heat and nerve force. In other words, its presence diminishes all the physical phenomena of life.

"These direct effects of alcohol, as demonstrated by rigid experimental inquiries, are in perfect harmony with the phenomena presented by their use in all the grades and conditions of human society. The diminution of nerve sensibility, developed in proportion to the quantity of alcohol taken, may be seen in all stages, from simple exemption from all feeling of fatigue, pain, and sense of weight, as exhibited by ease, buoyancy, hilarity, &c., to that of complete unconsciousness and loss of muscular power. It is this anæsthetic effect of the alcohol that has led to all the popular errors and contradictory uses which have proved so destructive to human health and happiness. It has long been one of the noted paradoxes of human action that the same individual would resort to the same alcoholic drink to warm him in winter, to protect him from the heat in summer, to strengthen him when weak or weary, and to soothe and cheer him when afflicted in body or mind. From the facts already stated as to the action of alcohol on the constituents of the blood and tissues, all this is easily explained. The alcoholic drink does not relieve the individual from cold by increasing his temperature, nor from heat by cooling him, nor from weakness and exhaustion by nourishing his tissues, nor yet from affliction by increasing his nerve force, but

simply by diminishing the sensibility of the brain and nerves, and thereby lessening his consciousness of impressions of all kinds, whether from heat or cold, weariness or pain. In other words, the alcohol by its presence does not in any degree lessen the effects of the evils to which he is exposed, but directly diminishes his consciousness of their existence, and thereby impairs his judgment concerning the degree of their effects upon him. Well did the wise man of old say that 'Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise.'

"I say then, as I have repeatedly said on other occasions, that from all the facts hitherto adduced, whether from accurate experimental investigations in different countries, from the pathological results developed in the most scientific societies, from the most reliable statistics of sickness and mortality, as influenced by occupations and social habits, or from the life insurance records kept on a uniform basis through periods of ten, twenty, thirty, or even forty years, it is clearly shown that alcohol when taken into the human system not only acts upon the nervous system perverting its sensibility, and if increased in quantity, causing intoxication or insensibility, but it also, even in small quantities, lessens the oxygenation and decarbonisation of the blood and retards the molecular changes in the structures of the body. And when these effects are continued through months and years, as in the most temperate class of drinkers, they lead to permanent structural changes, most prominently in the liver, kidneys, stomach, heart, blood-vessels and nerve structures, and lessen the natural duration of life in the aggregate from ten to fifteen years. Consequently there is no greater or more destructive error existing in the public mind than the belief that the use of fermented and distilled drinks does no harm so long as they do not intoxicate.

#### THE EVILS OF FERMENTED LIQUORS.

"Another popular error, but little less mischievous, is the opinion that the substitution of the different varie-

ties of beer and wine in the place of distilled liquors promotes temperance and lessens the evil effects of alcohol on the health and morals of those who use them. Accurate investigations show that beer and wine-drinkers generally consume more alcohol per man than the spirit drinkers; and while they are not as often intoxicated they suffer fully as much from diseases and premature death as do those who use distilled spirits. Again, the beer-drinker drinks more nearly every day, and thereby keeps some alcohol in his blood more constantly; while a large percentage of spirit-drinkers drink only periodically, leaving considerable intervals of abstinence, during which the tissues regain nearly their natural condition. The more constant and persistent is the presence of alcohol in the blood and the tissues even in moderate quantity, the more certainly does it lead to perverted and degenerative changes in the tissues, ending in renal and hepatic dropsies, cardiac failures, gout, apoplexy, and paralysis.

"If the foregoing views regarding the effects of alcoholic liquids on the human system in health are correct, what can we say concerning their value as remedies for the treatment of disease? If it be true that the alcohol they contain acts directly upon the corpuscular elements of the blood, and so far diminishes the metabolic processes of nutrition and disintegration as to lessen nerve sensibility and heat production and favour tissue degenerations, their rational application in the treatment of any form of disease must be very limited.

"And yet the same errors and delusions concerning their use in the treatment of diseases and accidents are entertained and daily acted upon by a large majority of medical men as are entertained by the non-professional part of the public.

"Throughout the greater part of our medical literature they are represented as stimulating and restorative, capable of increasing the force and efficiency of the circulation, and of conserving the normal living tissues by diminishing their waste; and hence they are



the first to be resorted to in all cases of sudden exhaustion, faintness or shock, the last to be given to the dying and the most constant remedies through the most important and protracted acute general diseases. Indeed, it is this position and practice of the profession that constitutes at the present time the strongest influence in support of all the popular though erroneous and destructive drinking customs of the people. The same anæsthetic properties of the alcohol that render the labouring man less conscious of the cold or heat or weariness, also render the sick man less conscious of suffering, either mental or physical, and thereby deceive both him and his physician by the appearance temporarily of more comfort. But if administered during the progress of fevers or acute general diseases, while it thus quiets the patient's restlessness and lessens his consciousness of suffering, it also directly diminishes the vaso-motor and excito-motor nerve force with slight reduction of temperature, and steadily diminishes both the tissue metabolism and excretory products, thereby favouring the retention in the system of both the specific causes of disease and the natural excretory materials that should have been eliminated through the skin, lungs, kidneys, and other glandular organs. Although the immediate effect of the remedy is thus to give the patient an appearance of more comfort, the continued dulling or anæsthetic effect on the nervous centres, the diminished oxygenation of the blood, and the continued retention of morbid and excretory products, all serve to protract the disease, increase molecular degeneration, and add to the number of fatal results.

#### IS ALCOHOL A MEDICINE?

"I am well aware that the foregoing views, founded on the results of numerous and varied researches and well-known physiological laws, and corroborated by a wide clinical experience, are in direct conflict with the very generally accepted doctrine that alcohol is a cardiac tonic, capable of increasing the force and efficiency of

the circulation, and therefore of great value in the treatment of the lower grades of general fevers. But there have been many generally accepted doctrines in the history of medicine that have proved fallacious. And the more recent experiments of Professor Martin, Sidney Ringer and Sainsbury, Reichert, H. C. Wood and others, have as clearly demonstrated that the presence of alcohol in the blood as certainly diminishes the sensibility of the vaso-motor and cardiac nerves in proportion to its quantity until the heart stops paralysed, as that two and two make four.

"After an ample clinical field of observation, in both private and hospital practice, for more than fifty years, and a continuous study of our medical literature, I am prepared to maintain the position that the ratio of mortality from all the acute general diseases has increased in direct proportion to the quantity of alcoholic remedies administered during their treatment. How can we reasonably expect any other result from the use of an agent that so directly and uniformly diminishes the cerebral, respiratory, cardiac and metabolic functions of the living human body? Both the popular and professional beliefs in the efficiency of alcoholic liquids for relieving exhaustion, faintness, shock, &c., are equally fallacious. All these conditions are temporary, and are rapidly recovered from by simply the recumbent position and free access to fresh air. Ninety and nine out of every hundred of such cases pass the crisis, and begin to revive before the attendants have time to apply any remedies, and when they do not, the sprinkling of cold water on the face and the vapour of camphor or carbonate of ammonia to the nostrils, are the most efficacious remedies, and leave none of the secondary evil effects of brandy, whisky or wine. Indeed, whenever a person affected by sudden exhaustion or syncope is able to swallow wine or whisky, he is in no immediate danger of dying; and yet the recovery is always attributed to the last remedy given, even though its real influence may have been injurious to the patient. Nothing could more



clearly demonstrate the power of alcohol to paralyse both the respiratory and cardiac organs than the experiments detailed by Dr. H. C. Wood, in his address to the recent International Medical Congress at Berlin on the subject of anæsthesia.

"But without further taxing your patience with the details of investigations and statistical results, I will answer three of the questions proposed for discussion by this assembly, by saying, first, that alcohol is a poison; or, in the words of Dr. Joseph Frank Payne, Vice-President of the Pathological Society of London, that 'the action of alcohol on tissue or tissue elements is three-fold. (1) as a functional poison; (2) as a tissue poison or destructive; (3) as a checker of oxidation.' Second, that alcohol is in no proper sense a food, either direct or indirect. And third, there are not proper or necessary uses of alcohol as a medicine, except by the chemist and pharmacist in the manufacture and preparation of drugs. It is true that a physician can make the anæsthetic properties of alcohol available for the temporary relief of pain and the induction of sleep, but it is equally true that he has many other remedies more efficient for those purposes and less objectionable than the alcohol; consequently the use of the latter is neither necessary nor proper.

#### AN APPEAL TO THE MEDICAL PROFESSION.

"I wish to say further to the members of that most important and humane profession, in whose ranks I have diligently laboured for more than half a century, that if you, one and all, will patiently and boldly verify the truth of these several propositions as I have done, by acting in accordance with them at the bed-side of the sick, you will not only soon realise a marked diminution in the ratio of mortality from all those diseases for which you have heretofore prescribed alcoholic liquors, but by uniformly characterising such liquors as depressing, paralyzing and poisonous, instead of stimulating and tonic whenever they are alluded to, you will save

many thousands from death annually, and do more towards banishing the terribly destructive habit of liquor-drinking from every circle of human society in one decade than has been accomplished by legislation in a century past. By thus quietly and persistently designating all the various fermented and distilled drinks simply as diluted poisons capable of impairing cerebral and nerve sensibility, muscular force, metabolic tissue changes and secretory activity, in proportion to the quantity taken, you will more rapidly and effectually educate the people correctly on this all-important subject than can be done by any other agencies. You, more than any other class of persons, have free access to the individuals and families of every grade of human society. It is to you that all classes look for guidance in all matters relating to the preservation of health and the prolongation of life. Not only the common language you use in relation to alcoholic liquors, but your individual practices also, are capable of exerting a mighty influence over the maxims and habits of all other classes. And it must be remembered that in proportion as the influence of your precepts and your practices is great, so is your individual responsibility for actively exerting that influence in the right direction."

Dr. WILLIAM H. PORTER, professor of Clinical Medicine and Pathology in the New York Post-Graduate School and Hospital, opened the discussion of "The Physiological Relation of Alcohol to Food." He was of the opinion that alcohol had a great value in cases of extreme and physical exhaustion, because it had the power to call into action the reserved forces of the system. But he said alcohol was nevertheless a dangerous medicinal agent, never to be admitted to a common list of food-stuffs, and that it should never be introduced into the system except in connection with diseased processes or weakening and retrograde conditions.

Dr. Elisha Chenery, of Boston, the author of "Alcohol inside Out," read a paper on the same subject. He said,

Water, with the alkaline and acid fluids of the body, is the universal solvent of the body. There is nothing alcohol can do but oppose and hinder, since it is in direct antagonism to the various laboratory ferments. Therefore as a fluid for the body it is not needed. It has no place. Its use is positively harmful."

Dr. LESLIE E. KEELEY, of the Keeley Institute for Inebriates at Dwight, Ill., also contributed a paper, in which he said, Alcohol is the great conservative drug of nutrition. In the labouring man a certain quantity of alcohol will preserve the body weight with the same food pounds of labour and with a given quantity of food, and if these other things are equal the absence of the alcohol will require more food, or a decrease either in the labour or body weight.

Mr. AXEL GUSTAFSON, author of "The Foundation of Death," read an elaborate paper on "Some Effects of Alcohol on the Brain."

Dr. N. ROE BRADNER, of Philadelphia, followed with a paper on the same subject. "We are often confronted," said he, "with the question: 'Does the habit of moderate drinking in a patient increase the danger when attacked by disease?' Now I assert that all dangers may result from this so-called moderate drinking. We know, alas, too little of alcohol and its true character, but we do know it is a poison, and like all poisons may act differently on different subjects. Why then should we tamper with an unknown deadly weapon?"

Dr. T. D. CROTHERS, Secretary of the American Medical Temperance Association and the editor of "The Journal of Inebriety," of Hartford, Conn., read a paper on "Drunkenness a Disease; Its Remedy by Scientific Means."

Dr. C. A. DORMAN, of New Haven, Conn., opened the discussion of the question: "Can a Physician practise Medicine without Alcohol? and If So, What Shall be the Substitute?" He said: "Alcohol should be prescribed with caution, especially in the atonic dyspepsia of the sedentary, because of the danger that an alcoholic habit

may be formed. I suggest that the only way that any learned brother can prescribe these remedies cautiously is not to prescribe them at all. Concerning the feeble digestion of old people I would say that here usually the cause of indigestion is insufficient mastication. Personally I have no use for alcohol in pneumonia, typhoid and diphtheria. There are heart tonics and stimulants enough in the materia medica, and if we have the best interests of our patient and of our country in mind we will give time and study enough to this subject to come to some intelligent conclusion and to have some real conviction of our duties. If all sceptics will study these remedies carefully they will learn that it is possible to practise medicine without using alcohol, and thus do something to redeem the medical profession from the just but odious charge of promulgating in the nineteenth century the opinions and errors of rude and ignorant times."

Dr. C. GILBERT WHEELER, of Chicago, said: "Alcohol is not an ideal vehicle or menstrum. Such a body while a solvent should have in itself no medicinal character, no therapeutic action, especially not a toxic one, as alcohol in large doses certainly has."

A young physician, Dr. JAMES WOOD, of New York City, championed the old theory of alcoholic medication. He maintained that alcohol is a stimulant for which no substitute has as yet been found. He said, however, that the administration of alcohol could be carried to an extent where it would interfere with body nutrition, and that the amount that could safely be used varied with individuals.

Dr. F. O. BROADY, of Chicago, closed the discussion of this topic. His conclusion was that "the physician can do without alcohol and all agents belonging to the same class."

Dr. M. L. HOLBROOK, of New York City, in speaking on the question of "The Effect upon Longevity of the Moderate Use of Alcoholic Liquors," said: "Alcohol acts on the heart as a whip or spur and makes it beat faster than it should. Kept up year after year, it must injure this important

organ and shorten life. The working capacity of the lungs is lessened even by the moderate use of alcohol. That is, by the use of it, less oxygen is produced and less carbon dioxide is thrown off. If we turn to the nervous system we find still another illustration supporting our belief that alcohol shortens life, even if not used to intoxication. The healthy, well-trained brain, is a fountain of strength to its owner. It thinks straight and its thoughts go to the mark. The man whose brain is stimulated by alcohol never thinks quite straight; with him hope is magnified and caution diminished; he often rushes into danger that ends life abruptly, or performs deeds that degrade him for ever. Can he for a moment believe that the substitution of abnormal for normal neural processes, incorrect for correct thinking, does not injure the constitution and diminish life both in quantity and quality?"

The other papers presented were: "Climatic Influences as Related to Inebriety," by E. P. Thwing, M.D., of Brooklyn, N. Y.; "What are the Effects of Alcohol upon the Physical, Chemical, and Vital Properties of the Animal Tissues and Fluids?" by Henry Clay Paddock, M.D., of New York, and W. F. Pechumen, M.D., of Detroit; "How to Deal with the Drunkard, with Reference to the New Massachusetts Laws, and New Hospital for Dipsomaniacs and Inebriates," by W. F. Spaulding, secretary of the Massachusetts Prison Association; "In What Ways may a Physician Effectively Help to Stay the Ravages of Intemperance?" by R. H. Thomas, M.D., of Baltimore, Fred Wooster Owen, M.D., of Morristown, N. J., and John Blackmer, M.D., of Springfield, Mass.; "W.C.T.U. Methods," by Mrs. Martha M. Allen, of the New Jersey W. C. T. U.; "Personal Observation of the Effects of Alcohol in producing Crime among Women,"

by Lucy M. Hall, M.D., of Brooklyn; "Is Alcohol a Poison?—If so, should it ever be taken into the System except under the direction of a Medical Adviser?" by J. Henry Carver, M.D., of New York; "Does the Moderate Use of Fermented Liquors tend to injure the Body and Brain?" by Edward C. Mann, M.D., F.S.S., President of the New York Academy of Anthropology, and Henry S. Drayton, M.D., of New York; "The Use and Abuse of Alcohol as a Medicine," by H. Bedell Crane, M.D., of Newark, N. J.; "The Woman Doctor; her place and her work," by Mrs. Isabella M. Rankine, of Brooklyn; "The Use of Alcohol—first, as a medicine; second, as a beverage," by N. S. Robert, M.D., of New York; "Do Alcoholic Beverages aid Digestion and assist in the assimilation of Food," by I. N. Quimby, M.D., of Jersey City; "The Hereditary Effects of Alcoholism," by John Francis Burns, M.D., of Fort Hamilton, N. Y., "The Relations of Alcohol and of Health to the Nervous Centres," by T. S. Lambert, M.D., of New York; "The National Temperance Hospital at Chicago; "The Results Noted of the Exclusion of Alcohol in the Treatment of Diseases," by C. G. Davis, M.D., of Chicago; "The Latest Investigations of the Effects of Alcohol on the Heart," by David Wark, M.D., of New York, and "What is the best Medical Treatment for Alcoholism," by C. H. Shepard, M.D., of Brooklyn.

At the close of Thursday night's session, Dr. Davis frankly admitted that when he left home he was in a very dubious frame of mind as to the results of the Congress. He had not expected much in the way of emphatic declaration for a medical reform to which he had given serious thought for fifteen years. "But," he said, "I am more than satisfied. I shall go home with a more buoyant heart than I had when I started."



## MEDICAL TEMPERANCE BREAKFAST.

IN accordance with a practice instituted twenty-two years ago, and regularly followed ever since, with greater success, the National Temperance League, on Thursday morning, 30th July, invited a large party of medical abstainers attending the annual meeting of the British Medical Association at Bournemouth, with other friends of the Temperance movement, to breakfast at the Hotel Mont Dore. The Mayor (Mr. T. J. Hankinson) kindly consented to preside on the occasion, and was supported by Dr. Norman Kerr, one of the vice-presidents of the League, Mr. Robert Rae (Secretary), and a large number of distinguished medical practitioners, included in the general company being also several members of the Corporation, most of the local leaders of the Temperance cause, and a number of ladies. Breakfast was laid in a spacious pavilion erected over the asphalt tennis ground, and an admirable repast was provided, during the consumption of which an excellent programme of music was played by the Royal Italian Band. Breakfast concluded, a few speeches followed, these having of necessity to be brief, on account of other engagements.

THE MAYOR, in opening the proceedings, tendered his thanks to the League for the honour they had done him in inviting him to preside on that occasion. He was very much interested in their cause, for he had practically been an abstainer all his life, although until the last two years he had taken no public part in connection with the movement. But when, for the second time, he was elected chairman of the late governing authority—the Bournemouth Commissioners—it became necessary for him, as hospitality had come to be part of the duty of chairman, to take some public stand, and accordingly he announced, on the first occasion when the need arose, that an excursion which he proposed to take the board would be conducted on temperance principles, and he wished all public men, in like circum-

stances, would think of the influence which their action would have upon those surrounding and connected with them. He should like to mention, as showing the triumph and progress of temperance in this part of the country, that on the first Town Council in Bournemouth, elected under the single vote, they had eight abstaining members. None of them were medical men, but he trusted that was not a sign of the feeling of the medical men in Bournemouth. He believed that if the ministers of religion and the medical men could all become firmly convinced of the importance of this movement, and would give it their support, that would be a power nothing could resist. He was glad the other day, when attending the International Congregational Council, to hear that 60 per cent. of the Congregational ministers of England and Wales, and 90 per cent. of the students in the colleges, were abstainers, and it occurred to him if that were the case with other denominations, what a grand thing it would be. If the medical men would join with the ministers in this matter it would be still grander, and the power which would be exercised upon their friends and clients would be immense. He hoped this conference might help towards that result.

MR. ROBERT RAE apologised for the absence of the Rev. Canon Wilberforce, who had promised to be present, but who, having been unexpectedly called upon to come to Bournemouth on Tuesday in the place of the Bishop of Winchester, found it impossible to leave home again, and therefore begged to be excused. Mr. Rae then briefly referred to the inauguration of these gatherings at Leeds twenty-two years ago, under the presidency of the late Sir Edward Baines, and to the growing interest which had been manifested in medical temperance; adding that, taking all things into account, he did not remember to have seen a more successful and interesting gathering than that which they had that morning. Their object was to



seek to establish a bond of union between temperance reformers and the medical profession. They had no desire to dictate to them or tell them what they should do, but they were anxious that they, as a great body of influential men, should help to wipe away the greatest curse that now existed in this country.

Dr. NORMAN KERR tended a hearty welcome to the company on behalf of the League, and congratulated them on meeting under the presidency of the chief officer of this great town of Bournemouth. He did so with all the greater pleasure because he had reason to be deeply indebted to Bournemouth; for, had it not been for the health-giving breezes of these beautiful shores and the splendid bathing on these yellow sands, in all probability he should not have had the honour of appearing there. With such a health resort as Bournemouth had become, so splendidly secured in its sanitation by the Corporation and the medical officer, they had one of the greatest means of subserving the cause of temperance throughout the country. The stand he took that morning, in addressing them as medical men, was that total abstinence was the surest way, all other things being equal, of attaining the highest physical, mental, moral, and every other kind of health. He urged upon them that they had a great responsibility in this matter, and hoped that this meeting would be made a starting-point for a greater advance. Just one word about the whole foundation of temperance reform. Was alcohol such an innocent thing to use as a beverage that every man, woman and child, could either let it alone or try to take it in moderation? If the tendency to mischief did not lie in the alcohol, but in the person who took it, it was quite evident the temperance movement was not destined to endure any great amount of permanence; but if the tendency was towards cell degeneration and premature decay of tissues, thereby antedating that day of death to which all must look, then surely it was the duty of the medical profession to teach

the people that this was a dangerous and perilous substance, which, as Sir Henry Thompson said, could never be taken by anyone without some possible risk. That was his ground for being an abstainer, and, feeling it was his duty to be that, he was obliged to teach that alcohol, opium, and chloral, were all lethal poisons, whose tendency was to the descent of the human race. Let them think what a contrast there would be if the use of alcohol could to-morrow be confined to the arts and manufactures—what a contrast there would be between the alcohol-soaked Britain of to-day and the alcoholless Britain of to-morrow? What right had they to hinder the consummation of such a glorious result as that? He felt that the medical profession, in not taking a greater part in this matter, were losing one of the grandest opportunities of contributing to the public health of the community, as well as to the higher and more enduring interests of the present and the future life. What had the medical profession done in sanitation, as they might see in Bournemouth? They had achieved a magnificent result in the prevention of disease and the lessening of the mortality of the community, by public and personal sanitation; but by the teaching of the true physiology and pathology of the poison of alcohol on the body of man they would be the means of securing immensely greater advantages than those their teaching had secured to the public health of the community. He hoped they would banish all indifference to this matter, and that they would go forth to battle for the right against the wrong, for truth against error, and for those great interests of the community which they were all bound to look upon as a matter of duty, to the profession as well as to the country.

Mr. P. G. W. NUNN (Medical Officer of Health) gave his fellow-practitioners a very hearty welcome to Bournemouth. He hoped they would thoroughly enjoy themselves, and that they would come again at some future time, and enjoy themselves in the same way.

Dr. T. HUGHES, J.P., of Bala, who was called upon as a representative of "gallant little Wales," claimed that his country, which was something more than a "geographical expression," was taking a leading part in the matter of temperance. He referred to the report of the Sunday Closing Commission, and said the Welsh were now beginning to think that if they could do without drink on Sunday they could do without it on Monday, on Tuesday, and on other days of the week; and he believed that before long Wales would become an object lesson even to Scotland, as a country that could do without the drink. He believed that there were a great many medical men now who were total abstinents, but they were afraid of their patients. Some patients did not like a teetotal doctor; they did not like his physic, and they would go to a doctor who ordered the drink rather than one who ordered water. A man came to him the other day, and said, "If you don't order my father intoxicants he will consult another doctor." He urged them to act up to their principles, and to boldly declare that health is perfectly consistent with teetotal principles.

Dr. M. CAMERON (Glasgow) gave a very entertaining and humorous address, full of point and anecdote. Referring to the story told by the previous speaker, he said Dr. Hughes evidently forgot one point. It was clear to him that the young man who asked him to prescribe drink for his father wanted to get into his father's shoes. Some people said they could not take too much. Well, if they could keep it in their stomachs, as if their stomachs were a tin kettle, it would only be a question of capacity of the stomach. The mischief was that the alcohol went up higher, and got into the head. It was very much like an umbrella that caused mischief to a steamer plying between Wales and Ireland. The steamer went on the rocks, and nobody could explain how it was. The compass was tested, and it was all right, but it was proved on examination that a passenger with a steel-ribbed umbrella had been stand-

ing near the compass. One gentleman advanced that as a theory, and, though at first poo-pooed, it was tried, and the experiment had the desired effect. The umbrella, it was found, so affected the compass that the steamer could not be properly steered. So with alcohol; it was all right as long as they kept it under hatches, but if they got it near the compass, then the ship went on the rocks no matter how well they tried to steer. Referring to some of the advances which had been made with regard to this reform, Dr. Cameron said that when he was a student at the Western Infirmary in Glasgow, the house-surgeons used to go "the whole hog," and unless they got in at twelve o'clock, and got the night watchman to help them over the wall, they thought things were not right. Now there wasn't a drop of liquor to be seen at the doctor's table; and in the Glasgow Maternity Hospital, in which they treated over 2,500 cases in a year, there was nothing gave him greater pleasure, as the physician, than when they got two temperance men there, and in the evening, when he was up there, it was very pleasant to him to join them at their table, and find "nothing" there.

Dr. J. STEWART, of Clifton, was glad of the opportunity to stand up for "Ould Ireland." He had the misfortune to have a Scotch name, but he had a warm Irish heart. If they had one thing to thank Scotland for, it was that she had sent over to Ireland men whom Ireland was not ashamed of, among them being one whom they knew down here as Earl Cairns. The speaker denied the value of alcohol as a beverage, and, though admitting to fifty-two years of age, said he was quite willing to run his five miles, to take five rounds with the gloves, or to swim with any one his own size and weight. The speaker quoted from his own experience as a naval surgeon, showing the value of total abstinence in unhealthy climates, and afterwards referring to the manner in which alcohol attacks the will, he compared the will to the steering power of a ship, and asked them every-

one to impress upon their patients that they could not get a ship properly steered if the steering power was imperfect. He had had in his own house men engaged in literary occupation, whose will had been so undermined by alcohol, this wretched poison, that they dared not go out without someone to protect them against the dangers of temptation.

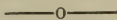
Dr. J. J. RIDGE (London) briefly urged the claims of the British Medical Temperance Association, a society which at the present time has a membership of 400 medical men, besides 118 associates. He referred to the changes which have taken place in the views of the profession with regard to alcohol, showing the encouraging progress that had been made, and the promise of the future. He reminded them, however, that the Chancellor of the Exchequer had shown that the expenditure on intoxicants last year showed an increase of seven millions sterling. That meant seven millions worth more of brain destruction, and perhaps more than that. He urged upon them the importance of these facts, and the duty of advising total abstinence. If this were a new evil, like ether-drinking in Ireland, which had been so promptly put down, the thing would only need to be exposed for it to be at once dealt with. This evil was a great deal worse than the other, and he argued that no less drastic remedy ought to be applied. They were not making a crusade against alcohol as a medicine, though personally he had no faith in it. He had only used it once at the Temperance Hospital, and he was not likely to use it again. Still he wished to maintain his freedom with regard to it as a medicine, though he empha-

tically protested against it as a beverage or article of diet. He hoped the result of that gathering would be a large accession of members to the British Medical Temperance Association.

Dr. ALDRIDGE (of Southampton), quoted the words of Shakespeare: "Though I look old, yet am I strong and lusty; for in my youth I never did apply hot and rebellious liquors in my blood." He could not quite say that, but for the last twenty years at all events, he had not added "hot and rebellious liquors" to his blood. One of his chief reasons was that he liked to have a good balance at his bankers. The struggles of life were very great; those who used intoxicants were always drawing upon the balance of health, but those who abstained had a balance at their bankers ready for emergencies. He thought they ought to adopt the same principle with regard to alcohol as they did with some other matters; they looked after the house-drains and cesspools, and he thought they ought also to look after the drains from the whisky bottle. He concluded by proposing a vote of thanks to the Mayor for presiding.

Dr. A. H. CRESPI (Wimborne), a life-abstainer, who had the honour of taking part in the meeting sixteen years ago when the British Medical Temperance Association was formed, seconded the proposition, and laid special emphasis on the moral side of the question, remarking that for one person who was physically injured by alcohol at least a hundred were morally injured, doing harm to themselves and to the community.

The MAYOR briefly acknowledged the vote, and the proceedings concluded.



LUNACY DOCTORS AND THE CONFIRMED INEBRIATE. — The Congress of Doctors of Lunacy sitting at Weimar, in September, passed a resolution approving of the German Bill for the repression of drunkenness. The clauses making confirmed drunkenness a punishable offence were, however, disapproved of. Persons thus afflicted, it was recommended, should be treated as diseased, and, as such, placed in proper asylums.



## THE BRITISH MEDICAL ASSOCIATION.

### REPORT OF INEBRIATE LEGISLATION COMMITTEE.

YOUR Committee has much pleasure in recording the prompt action of the Government in grappling boldly with the recent rise and progress of the baneful habit of intoxication by ether, to which Mr. Ernest Hart drew general attention in an exhaustive paper read by him in October, 1890, to the Society for the Study of Inebriety. Your Chairman, acting by your authority and also on behalf of the Society for the Study of Inebriety, held repeated communications on this subject with the Home Secretary, the Chancellor of the Exchequer, and the President of the Board of Inland Revenue. The authorities, alive to the serious expansion of this form of inebriety, which had spread with remarkable rapidity, mainly owing to the cheapness of ether prepared from methylated spirit, took the effective course of scheduling sulphuric ether as a "poison," to be sold only by chemists and druggists under the provisions of the Pharmacy Act. The result has been most satisfactory, the sale of ether in Ireland having decreased 90 per cent. A still more recent development, over a more restricted Irish area, of methylated spirit drinking is to be dealt with also by Government.

For years past your Committee has, with the Society for the Study of Inebriety, been urging upon the Government the need for an inquiry into the working of the Inebriates Act, 1879. An Amendment Act was passed in 1889, which made permanent the previous temporary Act, in addition to one or two minor improvements. For this the community is greatly indebted to the good offices of Mr. Matthews, the Home Secretary, whom your Chairman has always found sympathetic and ready to render to lend legislative help so far as the exigencies of parliamentary work would allow.

Existing legislation has these chief defects: There is no provision for the poor; admission of a voluntary appli-

cant for reception in a licensed retreat is rendered forbidding by an enforced appearance before two justices; and an inebriate can be received and detained in such a retreat only at his own request.

It is essential that well equipped retreats for the treatment of the disease of inebriety on such lines as those on which the Dalrymple Home is conducted, should be established, in which the poorest could be treated under conditions most favourable to a permanent cure. All obstacles to the admission of voluntary applicants should be removed, cases being received and detained on a simple request in writing, without appearance before magistrates, due care being taken to safeguard the liberty of the subject. Above all, compulsory powers should be vested in properly constituted authorities, in order that inebriates of all classes, whose will has been so broken down that they are unable to apply for admission of their own accord, might be secluded for sound treatment in the hope of cure.

Police-court and other criminal inebriates, with whom our present judicial procedure has been a conspicuous failure, should be similarly treated as diseased individuals, whereby a substantial proportion of such offenders against the law might be converted into healthful, useful, and orderly citizens.

Your Committee, therefore, gladly notes that a Committee of the House of Lords has been appointed, on the motion of Lord Herschell, to inquire into the present treatment of inebriate criminals and into the working of the Inebriates Acts.

Your Committee regrets that Mr. Morton's proposed Restorative Homes (Scotland) Bill has not been introduced into Parliament, and re-affirms its formerly expressed approval of this legislative proposal in so far as it provides for compulsory reception and detention, for the reception and de-



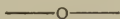
tention of voluntary inebriate patients without magisterial proceedings, and for contributions from the public funds.

The Committee recommend its re-election as follows: the President and President-elect *ex officio*; Dr. Withers Moore, President of Council; Mr. D. B. Balding, J.P.; Dr. T. Bridgwater, J.P.; Dr. C. Cameron, M.P.; Dr. Alfred Carpenter, J.P.; Dr. G. B. Clark, M.P.; Dr. C. R. Drysdale; Mr. George Eastes; Dr. J. W. Eastwood, J.P.; Dr. R. Farquharson, M.P.; Sir Walter Foster, M.P.; Dr. W. T. Gairdner; Mr. W. C. Garman; Dr. J. Hill Gibson; Dr. A. Grant; Mr. F. J. Gray; Dr. C. J. Hare; Dr. Norman Kerr; Mr. H. R. Ker; Mr. R. N. B. Nicholson; Surgeon-Major G. K. Poole, M.D.; Mr. J. Pranker; Surgeon-Major R. Pringle, M.D.; Fleet-Surgeon George Robertson, M.D.; Dr. G. Danford Thomas, Coroner; Dr. H. W. Williams; Dr. Wynn Westcott, Deputy Coroner; and Dr. E. Hart Vinen.

NORMAN KERR, M.D., Chairman.

When the preceding report was

presented to the members of the British Medical Association at Bournemouth, its adoption was moved by Dr. Norman Kerr and seconded by Dr. P. W. G. Nunn, Medical Officer of Health for Bournemouth. Dr. J. C. Bucknill opposed the report, mainly on the ground that drunkenness was not a disease, but a vice, and did not see why the subject should be referred to a special committee. He moved as an amendment: "That while thanking the Inebriates Legislation Committee for its past labours, this meeting is of opinion that the whole subject of legislation for inebriety should be referred to the Parliamentary Bills Committee, and that the Inebriates Legislation Committee be not re-appointed by the Council." Dr. C. H. Allbutt seconded the amendment. Dr. James Stewart (Clifton) thought it was too large a subject for the Parliamentary Bills Committee to take up. He asked them not to practically ignore the action of the committee, which had done so much in the past. The amendment was lost, and the resolution for the adoption of the report carried.



## SOCIETY FOR THE STUDY OF INEBRIETY.

A QUARTERLY meeting was held in the rooms of the Medical Society of London, Chandos Street, on Tuesday, 7th July; the president, Dr. Norman Kerr, in the chair.

An interesting paper on "Ruthenian Inebriety," by Chevalier Max Proskowetz de Proskow-Marstorff, president of the Austrian Inebriety Society, was read by the PRESIDENT, who called attention to the remarkable difference between Austrian and British jurisprudence as regards inebriate criminal responsibility. In England, a man having while intoxicated killed his friend, would probably have been hung, or sentenced to imprisonment for life, or for a long period. By this procedure he would either have been put out of existence with little chance for repentance, or

he would probably have become a hopeless and irreclaimable criminal. By the juster Austrian penal code, Lagodin, who had killed his best friend in the unconscious frenzy of drunkenness, had been sentenced to only one and a half years' imprisonment, on the ground that there had been no criminal intention. By the latter procedure Lagodin had the opportunity of turning over a new leaf, had availed himself of this opportunity, and had after his release become a good citizen, a trustworthy, well-conducted man, a public benefactor and leader of a determined and successful attempt to deal with the prevailing inebriety of his fellow-countrymen. Britain might well profit by such a happy illustration of a discriminating distinction in punishment between crimes done in in-

tentional and unintentional intoxication.

Mr. JOHN HILTON said it was not reason or common sense to punish a man for crime committed while he was unconscious, and the Austrian law seemed to be very fair, as indeed in this most interesting history of a reformed drunken farmer in Ruthenia, the result had been most satisfactory. At the same time something should be done to discourage men from taking an article which might make them, while unconscious, perpetrate crime. It was very desirable that the legislature should institute a close inquiry into the criminality of inebriety, and the most judicious means of coping with it. It was of the highest importance to ascertain the best measures to be brought to bear on the drunken criminal.

Mr. JOSEPH SMITH was struck with the extreme care taken by the authorities in dealing with persons who infringed the law relative to the isolation of small-pox and other infectious diseases. Yet what were these maladies, as regards peril to the community, compared with inebriety? A confirmed or even periodic inebriate was often a greater danger to life and property than a small-pox or a scarlet fever case. In his gaol experience he had frequently women who had been in prison for drunkenness and allied disorders thirty to forty times. Until

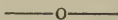
they could persuade magistrates and judges to look upon inebriety as a disease they would not go far forward.

Mr. F. J. GRAY, of Old Park Hall, Walsall, said the history in the paper was a type of many cases. They had to impress the legislature and the Lords' Committee of Inquiry that the habitual drunkard was a diseased man, and ought to be taken care of; and he was in a morbid condition of mind which rendered him irresponsible for his actions. It was a cruel injustice that habitual drunkards should be committed repeatedly as penal offenders. One woman of 72 had been out and in prison from the age of 12. Criminal acts were also committed by drunkards after they became sober, for which they were also irresponsible.

Dr. H. W. WILLIAMS said they should not lose sight of the great help derived from religious influences in confirming and strengthening an inebriate's resolutions to abstain.

Dr. R. PARAMORE thought that there was too much of giving criminals the lash, instead of trying to reform them. The inebriate was often diseased physically and morally, and must be treated as such.

The President was instructed to convey the best thanks of the Society to Chevalier Max de Proskowetz, for his most useful and interesting papers, which all the speakers spoke of in high terms of praise.



## THE TREATMENT OF DIPHTHERIA WITH OR WITHOUT ALCOHOL.\*

By ALFRED CARPENTER, M.D., M.R.C.P., *London.*

I HAVE frequently met with cases of diphtheria which have been treated with brandy, either as soon as exhaustion supervened, or from the very commencement of the disease. Most of these cases ended fatally.

I wish to suggest that this kind of treatment is radically wrong. Some

may have recovered to whom brandy had been freely exhibited; but they are few, and did so, in my opinion, in spite of the remedy rather than in consequence of it.

What is diphtheria? At first it is a local disease only, superficial and limited. This stage may be very short, but constitutional symptoms may begin almost at once. Whilst it is local, local measures may be expected to control it, but as soon as it

\* Prepared for the Medical Section of the British Medical Temperance Association, Bournemouth, July, 1891.

finds admission to the tissues of the throat a new state of things arises. The germs are carried by the blood and the absorbent fluids into various organs, and manifest their presence by serious disturbance of those organs. This is especially the case with the air-tubes, the kidneys, and the cardiac centres. It is necessary that we should receive early intelligence of their invasion. That intelligence is impeded by the exhibition of brandy. It is true the drug sometimes soothes the patient, but it is opening the back door to admit the enemy. It is diminishing the sensitiveness of the trophic nerves—viz., the nerves which regulate the contractility of the minute capillaries. The latter dilate and actually allow the diphtheritic disease germs to lodge in their dilated extremities; especially in the pulmonary mucous membrane they grow more and more rapidly. The soothing influence of the brandy on the trophic nerves masks the invasion, the medical attendant knowing but little of this intrusion until he is surprised by the expulsion of a cast from bronchus or trachea, and increased prostration through the inability of the air-cells to purify the blood. But there is not necessarily any seriously impeded breathing, for the brandy soothes the pulmonary and cardiac nerves, and hides the danger until it is too late. As an old practitioner, let me warn my younger brethren against this dangerous and delusive plan. The diphtheritic germ can be cultivated in brandy and water, and thus preserved from destruction. After a time it may be grown in gelatine, and produce a corresponding disease in fowls, or even in cats, as we have recently been informed by the medical officer of the Local Government Board. Brandy is in no way an antiseptic, but is a preservative of the dormant spores, allowing them to be conveyed into the slowed blood currents. It hastens the end of the case, which often comes upon the patient's friends as a surprise, if there is no great amount of laryngeal impediment.

Alcohol is not a stimulant; it is a narcotic, a soother of irritable nerves,

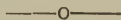
or it may act as an irritant to cerebral nerve cells. By giving alcohol we put out the danger signals which nature is showing us; we lull our patients and their friends into a dangerous lethargy, and give them hopes that the patient is recovering, whilst, in reality, the disease is rapidly advancing.

Let me show a better way. As soon as the disease manifests itself in the throat, isolate the patient in pure air, in a room capable of being kept at 60° Fah., without any articles of furniture such as carpets, curtains, or feather beds. Then carbolicise the atmosphere, so that it may contain a volatile agent, which stays the growth of disease germs. Creosote, or other similar compounds, will do as well as carbolic acid, if thoroughly diffused in the room. Make the patient gargle frequently with a weak solution of Condy's fluid, and drink the equivalent of five grains of permanganate of potash every time before taking food; not for the purpose of acting upon the blood (for it cannot do that), but in order to destroy any disease germs which may have been swallowed since the last food was taken, that they may not be admitted into the glands or taken up by the lacteals. Paint the diseased mucous surface with dilute sulphuric acid, and should there be any false membrane cover it alternately with flower of sulphur and animal charcoal. Persevere with this local treatment every two hours, and oftener, if need be, which will be shown by the growth of the false membrane. The usual prescriptions of steel or quinine or mineral acids are not so sure. The cases in which diphtheria runs its most rapid course are those of patients who have a strong lithic acid tendency, and all (so-called) absolute tonics and quinine are disadvantageous in these cases. The best internal remedy is a potash salt with biborate of soda, or a few grains of sulpho-carbolate of soda every two or three hours until the temperature becomes normal, and the local extension of the disease is arrested. The best diet is milk from a cow that is undoubtedly healthy, with some arrowroot, sago, or tapioca; jel-

lies with as little acid as possible. The best aperient will be some phosphate of soda in mutton broth. No alcohol of any kind should be given to allay restlessness, for it is only adding to the danger by allowing time for the disease to grow. In some depressed constitutions, after the disease has been conquered, say at the end of fifteen days, a little claret and water may be useful, but it is not to be given on any account until the disease is entirely absent. Let these rules be followed to the letter, and diphtheria will be deprived of much of its malignity and danger.

I have watched cases of this disease ever since it has been diagnosed as a distinct malady, and I at once asso-

ciated it in my mind with similar disorders affecting the vegetable kingdom. In the year 1873 I pointed out the analogy between diphtheria and potato blight, and stated that the vesting spores of the latter might be preserved unchanged in brandy-and-water. I concluded at that time that brandy-and-water would not be advantageous as a therapeutic agent. I discontinued its use, and have had the satisfaction of seeing all the adult cases which have come under my observation make a complete recovery, notwithstanding in some cases the development of temporary paralysis, which showed the imminence of the danger escaped.



## INFLUENZA AND ALCOHOL.

AMONGST the papers on influenza read at the recent meetings of the British Medical Association there was one by Dr. Norman Kerr, who objected to the abominable mixture of ammoniated tincture of quinine in water whereby the alkaloid was set free, forming a repulsive milky liquid which he once tasted. Though he had influenza twice, with much consequent discomfort, he preferred the influenza. The addition of mucilage would abate the nauseousness of the physic; but he preferred tincture of quinine or quinine in pill, one grain three times daily, when a prophylactic was thought needful. He gave a word of caution against the prophylactic use of intoxicating drinks, which invited rather than averted the disease. Dr. Kerr had seen several patients with influenza who had become drunk in their vain alcoholic effort to ward off the malady. He denounced large doses of quinine. One patient had suffered intense agony from a self-prescribed dose of 20 grains. A second important point was the value in treatment of prompt and profuse diaphoresis. Where this had been secured as soon as the symptoms appeared, continued for two or three days, and the patient had remained in bed for six days, he

had seen no death or permanent lesion in 1,600 cases, though he had had deaths where these conditions had not been achieved. Immediate and prolonged perspiration should be the sheet anchor in treatment. He relied on frequent doses of liq. ammon. acetat with small doses of ipecac. In some cases there had been no time for a hot bath of any kind. A barman had fallen in agony on the floor while serving a pot of beer, the good (or bad) liquor being spilled. A young lady collapsed while ironing. A doctor fell on the bed of the patient whose pulse he had been feeling. A third point was the limited utility of modern antipyrics. Salicylate of soda, phenacetin, salol, and antipyrin had been occasionally of use, but good food and tonics (such as quinine, bark, calumba, or gentian) had effectually hastened recovery.

In regard to alcoholic remedies Dr. Kerr further said:—

With deep regret I recently read in the pages of a popular periodical, placed in the forefront of remedies for influenza, a judicious use of stimulants. Such advice to the lay public is as dangerous as it is unsound and unprofessional. It is not the language of science. Alcohol is an anæsthetic,



not a stimulant—a paralyrant, not a tonic. By their narcotic action, beverages containing alcohol in intoxicating proportion add to the deeply depressing influence of an obscure poison, the further depression from a poison of which we have considerable knowledge. In case after case to which an alcoholic intoxicant had been freely administered, in the face of an apparently fatal termination, I have succeeded in effecting the discontinuance of intoxicating remedies, with the result that the seemingly moribund patient has gradually emerged from the alcoholic anæsthesia, recovering, though slowly, health and strength.

Let me cite one case. The wife of a tradesman, aged thirty-nine, who had been prostrate from an attack of influenza with a relapse, had been having one bottle of port wine in every three days for thirty days, and had been given up when I was summoned. She was dull, semi-conscious, delirious, with hippocratic face and a scarcely perceptible intermittent pulse. The port wine was discontinued, hot external applications were applied, and the following mixture was given every two hours:—

- R. Vin. Ipecac. fl. m. 12.
- Sp. Ammon. Aromat.
- Sp. Chloroform.
- Tk. Cardamom. co. aa. fl. dr. i.
- Infus. Gentian. co. ad. fl. oz. vj.
- S. A. sixth part every two hours.

Warm milk and water was given in small quantities every hour, followed by beef tea, oatmeal gruel, and soups. The improvement was so gradual that the patient could not swallow solid food, beginning with bread and butter, for some twelve days. In three weeks, though still too weak to get up, she enjoyed an honest meal of roast lamb and spinach. Though she had been delirious for nine days, in four weeks she was able to get up a little, and in six weeks to have a short drive.

In this case the comparatively small daily allowance of three glasses of port wine had brought this woman, prostrated by influenza, literally to death's door.

I prescribe alcoholic beverages occasionally, though never without the

strictest injunctions as to quantity and time; but I confess that I have been appalled at the free and routine prescription of intoxicating drinks (of which the magazine article referred to earlier in this paper was but an indication) during the late influenza epidemics. After mature deliberation, and with an adequate sense of the responsibility involved in the statement, I do not hesitate to express my firm conviction that the grave mortality and sequelæ which have characterised the last epidemic of influenza have been substantially contributed to by a too free administration of alcoholic intoxicants. Where alcohol seems indicated in medicine, I have generally found the most serviceable method of administration to be in the form of tinct. cardamom. co., sp. ammon. aromat., and sp. chloroform. By adopting this plan I know exactly the dose of alcohol which I order, which is infinitely more scientific and satisfactory than relying on alcoholic beverages of varying alcoholic strength as well as of varying composition.

There are a few cases in which, probably on account of the ethers developed in intoxicating liquors, this form of alcoholic prescription seems most suitable. But I protest most emphatically against the misuse of medical authority in the recommendation, in the pages of the non-medical press, of the therapeutic use of alcoholic inebriant drinks. Such powerful substances, powerful, too often, for evil, should be prescribed by medical men only when no other drug will answer the purpose, with the most scrupulous precautions and the most definite directions. The British people are possessed enough already by the superstition that intoxicating liquors are innocent and strengthening foods. The wise physician, who has at heart the honourable traditions of his profession and the real physical and moral welfare of the community, should confine his commendation of potent and perilous remedies to professional circles, where his opinions can be considered and dealt with by his professional colleagues.

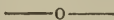
## STIMULANTS IN CASES OF HÆMORRHAGE.

WE are glad to find a writer in the *Medical Epitome* calling attention to the danger involved in the use of stimulants in cases of hæmorrhage. The weakness and faintness which commonly result from the loss of blood are a great temptation to resort to the use of alcoholic or other excitants—a practice which is based upon the false idea that stimulation and strength are synonymous terms. The writer referred to remarks as follows:—

“It is customary, when the accident of hæmorrhage occurs, for the operator, or some bystander, to administer wine, brandy, or some other alcoholic stimulant to the patient, under the false idea of sustaining the vital power. It is my solemn duty to protest against this practice on the strictest and purest scientific grounds. The action of alcohol, under such circumstances, is injurious all around. It excites the patient, and renders him nervous and restless. It relaxes the arteries, and

favours the escape of blood through the divided structures. Entering the circulation in a diluted state, it acts after the manner of a salt in destroying the coagulating quality of the blood; and, above all other mischiefs, it increases the action of the heart, stimulating it to throw out more blood through the divided vessels. These are all serious mischiefs, but the last-named is the worst. In hæmorrhage the very keystone of success lies so much in quietness of the circulation, that actual failure of the heart, up to faintness, is an advantage, for it brings the blood at the bleeding point to a standstill, enables it to clot firmly, when it has that tendency, and forms the most effectual possible check upon the flow from the vessels.”

The writer recommends the use of hot milk as a restorative after the immediate danger from loss of blood has been met.—*Good Health*.



## ALCOHOL AND SUDDEN DEATH.

By WYNN WESTCOTT, M.B., *Deputy Coroner Central London*.

IN a paper on the causes of sudden death, read at the “Medicine” section of the annual meeting of the British Medical Association at Bournemouth, Dr. Wynn Westcott gave the results of an analysis of one thousand consecutive inquests held by him in London.

After excluding all deaths occurring under the age of twelve years, and then removing all those due to external violence whether intentional or accidental, there remained 303 deaths which were properly described as natural, sudden and unexpected. Of these 303 deaths, eighty-eight, or 29 per cent., were attributed by the medical witnesses to the excessive use of alcoholic drinks.

Of these eighty-eight deaths (largely, if not entirely, due to alcoholic excess), fifty-seven were males, and thirty-one females.

Of the total number of 303 sudden deaths, 210 were due to syncope or fainting, sixty-four to coma or brain stupor, and twenty-nine to asphyxia or stoppage of breathing.

Of the sixty-four cases of coma, chiefly cases of apoplexy, twenty were due to habits of intoxication, and ten of them were women.

The twenty-nine cases of asphyxia included fewer cases of drink poisoning, only six being definite cases of inebriety: but then it must be remembered that a large number of accidental deaths from asphyxia when drunk were included in the 1,000 inquests, but excluded from present consideration of natural sudden deaths.

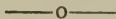
The 210 cases of death from fainting and heart failure tell the saddest and most serious story. In fifty-seven cases there was direct evidence of

drunken habits, that is in between 27 and 28 per cent. of the total deaths from syncope.

Post-mortem examination disclosed fatty degeneration of the muscular walls of the heart in seventy-seven cases. Of these thirty-three, or 43 per cent., were chronic inebriates.

Reviewing these very important statistics, the Deputy-Coroner said:—"This record demonstrates very clearly the extreme danger to life involved in drinking habits, more especially because of all the diseases set up by alcoholic excess. Fatty degeneration

of the heart is notable as affording so few reliable symptoms of its presence, and is capable of so little efficient treatment. These considerations seem to me to be such as temperance advocates would do well to insist upon, for there are many persons who are not ashamed to drink to excess, who yet shrink from the extreme risk of sudden death, which I have shown is so closely associated with inebriety—a risk from which each of *our* countrymen, at any rate, has from his earliest youth sought to be delivered."



### KOPS NON-INTOXICATING ALE.

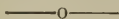
IN a letter, dated July 18th, 1891, Surgeon-General C. R. Francis, M.D., speaks of this ale as an "admirable substitute" for beer. He says:—"Essentially it is simply a preparation of pure Kentish hops, in water impregnated with carbonic acid and containing a mere modicum—less than 1 per cent. (ginger beer contains more)—of alcohol. I recently, with a medical friend, went over the Kops brewery in the Wandsworth Bridge Road, and had an opportunity, thanks to the courtesy of Mr. Evens, one of the partners who accompanied us, of inspecting in detail the various processes of manufacture. My friend and I were much impressed with the extreme care taken to secure purity of material and the cleanliness in working it. Excellent water has been obtained by sinking an artesian well 180 feet beneath the London clay, which has, at the point of sinking, a thickness of 500 feet below the surface. The hops are genuine, all offers of such combinations as are too frequently sold to brewers as substitutes being steadfastly rejected. The bottles, fitted with screw stoppers, are subjected to a system of most perfect cleansing; whilst they are completely emptied, by a plan of filtration and pressure combined, of whatever is likely to serve as a nucleus for setting up alcoholic fermentation hereafter. It should be stated that a small quan-

tity of sugar and of yeast are added to promote the brewing, and whence of course the minimum of alcohol is derived. Alcoholic beer, at first (in most cases) exhilarating and *apparently* stimulating, has a tendency to intoxicate, to narcotise, and to cause a variety of ailments which are frequently attributed, by the sufferers to other than the right cause. Kops ale refreshes, stimulates, and acts as a genuine nerve tonic. Like malt liquor it, in some persons, induces sleep—a result due to hops alone, and not, in the slightest degree, to alcohol as in the former case, and unaccompanied by any risk.

"The hop (*Humulus lupulus*) is a valuable old-fashioned remedy, now rarely prescribed; but its present re-introduction to public notice in an agreeable and useful drink will, it may be hoped, tend to restore to it some of its former popularity. Kops ale may be too bitter for some tastes. It is for mine; but the addition of a little sugar sufficiently removes this. I would urge those who try this ale, and to whom it does not commend itself, not to at once condemn it. In many such cases, after a continued trial, the subsequent verdict has been favourable. The ale, now largely used in clubs, hotels, &c., appears to be growing in public estimation, the demand for it being greater than the

supply, which at present amounts to 800 gross a day. The proprietors hope to be able, in the near future, to increase this quantity to a thousand gross a day. Its present cheapest price is three halfpence a half pint bottle, equal to a tumbler full, a half-

penny more than the cost of the *ordinary* ale, which—and *very ordinary* stuff it is—is too frequently supplied to the working man at a penny the glass. May we not hope to educate him to prefer the beer-like tonic to this pennyworth of poison?"



### INEBRIATE RETREATS IN ENGLAND.

THE Inspector of Retreats under the Inebriate Acts, 1879 and 1888, has issued his annual report upon the seven retreats licensed during the year 1890. In a schedule annexed the situation of each retreat, the name of the licensee, and the number of patients who were admitted and discharged during the year are set forth. No fault is found either with the sanitary or general condition of any of the retreats. On the whole, the health of the inmates has been remarkably good. No death has taken place. One new Retreat was opened—The Grove, Fallowfield, near Manchester, a license for which was obtained in the month of July. It was filled with twenty male patients shortly after the date of opening. In the aggregate, 109 patients were admitted to the different establishments during the twelve months. This is the highest number of admissions in any one year since the passing of the Acts. Some observations by the licensees on the working of the Acts and the results of treatment during the year record more than one opinion that the longest period of detention permitted by the Act (twelve months) is too short in many cases to accomplish the desired end. The licensee of the Rickmansworth Retreat (Dr. R. W. Branthwaite) put forward the following points "requiring urgent attention to make legislation for inebriates of more universal value":—  
(1) Less obstruction to the entrance of voluntary patients, by doing away with appearance before justices, or,

at all events, by appearance before one justice; (2) compulsory reception and detention of inebriates too will-paralysed to apply of their own account; and (3) need for provision for the poorer classes. A summary of the 224 cases discharged since the opening of the Home under the charge of this gentleman contains some exceedingly interesting and valuable figures. Most of the patients were between the ages of thirty and forty; the numbers of married and single were almost equal; and nearly all had received a good, if not what is described as a "college" education. Among the ranks of those treated were men of all professions and occupations. The largest number coming under one head are described as "gentlemen of no occupation." It is worthy of note that whereas only one retired naval officer figures on the list, no less than eleven retired army officers have been treated at the Home. The proportion of solicitors to barristers is almost, but not quite, as large. The difficulty of obtaining facts as to the hereditary tendency is shown by the failure in exactly half the cases treated to obtain any details of the family history of the patients. After leaving the institution ninety-four have done well, ten have improved, ten become insane, one died, seventy-four failed to make any improvement, and thirty-five have not been heard from. A new Retreat is to be opened at Saltash, in Cornwall, during the present year.—*Times*.





## Notes and Extracts.

**ALCOHOL AND INFLUENZA.**—In a valuable paper on "Influenza as an Organic Nervous Paresis," in a late number of the *Asclepiad*, Dr. Richardson expresses the view that no definite conclusion as to causes or remedies has yet been arrived at by the medical profession; but he emphatically says: "The remedy when found will not be an alcoholic stimulant. According to my observation, alcohol has added largely to the dangers of influenza."

**AMPUTATIONS WITHOUT ALCOHOL.**—The *Medical Press* of the 31st December published details of two cases of amputation performed at the London Temperance Hospital by the visiting surgeon, Dr. W. J. Collins. The operations were thoroughly successful, although one was upon a working man of thirty, a "steady drinker," who met with an accident while drunk; and the other, a charwoman of fifty-five, was of intemperate habits, and in liquor at the time of her accident.

**ALCOHOLISM AND TUBERCULAR DISEASE.**—Dr. Hector Mackenzie's paper, read in July last at Bournemouth, was concerned with the relation of alcoholism and phthisis, and other forms of tubercular disease. The conclusions he drew were that phthisis was not infrequent among the intemperate, and that in such cases the disease was generally particularly intractable and ran a rapid course. In a large proportion of cases of phthisis, in which no hereditary tendency could be traced, a history of intemperance was to be found.

**ALCOHOL IN ERYSIPELAS.**—Dr. Stembarth, of Cracow, emphatically recommends the treatment of erysipelas by means of freely painting the affected area and adjacent apparently healthy zone with absolute alcohol. The painting should be made with a brush or cotton wool swab, and repeated every two or three hours. Of twelve consecutive cases treated by

the author after this simple, easy, safe, and highly efficacious method, eleven recovered in two or three days. The remaining case (that of an extensive puerperal erysipelas of the lower limbs and lower part of the body) was cured on the tenth day.—*St. Louis Medical and Surgical Journal*, May.

**BEER-DRINKING AND HEART DISEASE.**—It is said (*Blätter f. Klin. Hydrotherapie*, 1891, No. 4) that disease of the heart is very prevalent in Munich, where the consumption of beer amounts, on the average, to 565 litres per head annually; and in the same place the duration of life among the brewing trade is shorter than that of the general population. Whereas the average age attained among the latter is 53·5 years, that of ale-house keepers is 51·35 years, and of brewers 42·33 years. The same note adds that for the whole of Germany the annual consumption of beer per head amounts to 88 litres, but for Bavaria it is 209 litres.—*Lancet*.

**DIPSOMANIA AND LUNACY.**—The theory that dipsomania is a form of lunacy like any other mania is slowly but surely gaining acceptance. The Commissioners of the Lancashire Lunatic Asylums have some significant remarks on the subject. "Although drunkards are not generally regarded as insane," they say in their latest report, "it is a question whether the habitual tippler might not with advantage be considered an irresponsible being, and treated as such." In support of their view they point to the facts that the children of insane persons frequently become dipsomaniacs, while in not a few cases the only cause that can be detected for a patient's insanity is the intemperance of one or both parents.

**MEDICAL TEMPERANCE ON THE CONTINENT.**—In the struggle to check inebriety, which has of late so occupied the most cultured intellects on the Continent of Europe, very little

has been done in the advocacy of abstinence. The prevailing idea, even among Continental members of the medical profession, has been that the increase of insanity and of other evils from drinking has arisen from the heavier alcohols, and that pure unsophisticated spirits, wines, and beers, are really temperance beverages. A new departure has, however, been taken by a few of our Continental confrères. Professor Forel, of Zurich, Professor Bunge, of Basle, and Dr. Wilhelm Bode, of Dresden, have established strictly abstinence societies in those cities, and those associations are now vigorously at work.—*British Medical Journal*.

MILK *v.* BEER.—Dr. Shaw, of Banstead Lunatic Asylum, reports that the abolition of beer in that institution has been of service in many ways, apart from the practical advantage of teaching patients whose insanity has arisen from alcoholic excess that it is possible to live and thrive without intoxicating drink. At Hanwell, the Commissioners state that only here and there did a patient complain of the withdrawal of the beer. At this large establishment the male attendants have been granted, in lieu of the former allowance of beer, £3 per annum, and the nurses £2 10s. Dr. Alexander, the medical superintendent, Male Department, states that this change in the dietary of the patients, which dates from April last, has so far been followed by the happiest results, as evidenced by the notable increase of contentment and decrease of squabbles and bickerings amongst the patients.

TREATMENT OF MORPHINOMANIA.—Two steps in advance have recently been taken in the provision for the treatment, in an institution, of morphine and allied narcomaniacs. One is in England, the other in America. Under the Lunacy Act of 1890, morphine or other inebriates may be received as voluntary boarders into licensed houses for the insane, with the consent of two Commissioners of Lunacy or two justices, by simple application, without specifying the cause

for which the applicants desired to be admitted. The American step is the opening of a home at Brooklyn for the reception of twelve *habitués* of morphine, cocaine, or chloral, of whom one-fourth are to be free patients, if an endowment fund of £12,000 can be raised for the latter purpose. The treatment pursued is preliminary sedation by sodium bromide, and a rapid reduction of the narcotic, the period of reduction averaging from ten to twelve days.—*British Medical Journal*.

GOUT AND FRUIT EATING.—In the last number of his *Archives of Surgery* Mr. Jonathan Hutchinson says that he has been in the habit for many years of forbidding fruit to all patients who suffer from tendency to gout. In every instance in which a total abstainer of long standing has come under his observation for any affection related to gout he has found on inquiry that the sufferer was a liberal fruit eater. Fruits are, of course, by no means, all equally deleterious; cooked fruits, especially, if eaten hot, with added sugar, are the most injurious, the addition of cane to grape sugar adds much to the risk of disagreement, Fruit eaten raw, and without the addition of sugar, would appear to be comparatively safe. Natural instinct and dietetic tastes have already led the way in this direction, few wine drinkers take fruit or sweets to any extent, and Mr. Hutchinson suggests as a dietetic law that alcohol and fruit sugar ought never to be taken together, and he believes that the children of those who in former generations have established a gouty constitution may, although themselves water drinkers, excite active gout by the use of fruit and sugar.—*British Medical Journal*.

WINE AND INDIGESTION.—Many physicians are in the habit of recommending wine to persons suffering from indigestion, particularly persons advanced in years, with the idea that it is an aid to digestion, or in some way re-inforces the vital power. The practical experience of observing physicians long ago pointed out the error of this practice, nevertheless all

those who are interested in the advance of temperance reform will be interested in the following confirmatory evidence afforded by the result of a series of researches, conducted for the purpose of determining the influence of wine upon digestion, by Prof. Hugonienq, as reported in a recent French medical journal. "(1) All wines, without exception, retard the action of pepsin; the most pernicious are those which are loaded with alcohol, cream of tartar, and colouring matter. (2) Of the elements of natural wine the active colouring matters, together with the cream of tartar and the alcohol, retard or arrest pepsic digestion. (3) The acidity of ordinary wines is powerless to provoke the action of pepsin; in the majority of cases it does not seem to aid it. (4) The colouring matters fraudulently introduced into wines, such as methyl blue, azoflavine, solid blue, and especially fuchsin, hinder pepsic digestion. The vegetable colouring matters, such as black madder, elder, maki, exercise, like enoline, a noxious action."

"SQUISH."—An inquiring stranger who was being shown over a British wine manufactory was struck by several high mounds of crimson dust. These he was told were the refuse of the wine presses in which the juice of raspberries, currants, and other fruit used in the business, was extracted for making the wine. As it is seldom that anything is wasted in an English factory an inquiry was made as to the form in which these mounds of dust would re-enter the market; the visitor was promptly told that it was disposed of to jam makers to give the appearance of fruit to the pulp of turnip, vegetable, apple, or what-not, which forms the basis of the confection. It would seem that almost anything will do to make jam of, as the chemist can produce a flavour to imitate every kind of fruit. It is commonly supposed that orange peel is picked up in the streets wherewith to make marmalade; probably this is a slander on the preserve maker, but according to the report of a case heard

this year in a metropolitan police-court, rotten oranges in the condition of a "black pulpy substance," and "quite unfit to eat," as the inspector very sapiently remarked, are considered by the owners of the fruit as good enough to be "chopped up for marmalade." Oranges for this "excellent substitute for butter at breakfast," it was shown, cost only 4s. a box, whereas fruit for eating costs 12s. A disquieting fact indeed. — *British Medical Journal*.

ALCOHOL IN INFLUENZA. — The *British Medical Journal* of July 4th, published a letter from Dr. W. E. Hadden (Portsmouth), in which he relates the following incident:—"About three months ago a gentleman called to ask my advice under the following circumstances. A lady friend of his, about forty years of age, had an attack of influenza about twelve months previously, when the epidemic was prevalent in this country. A medical man, whose name I do not know, living about twelve miles from this town, ordered for her, with other treatment, 10 to 12 ounces of brandy in the twenty-four hours. The attack of influenza soon got better; but, alas! as too frequently happens, the stimulant was continued — 'because the doctor had ordered it'—long after the necessity for its use had ceased. At the time her friend spoke to me she had become a confirmed drunkard, and would not be satisfied with less than a bottle of brandy every day, and she threatened to burn the house if this was not procured for her." Dr. Hadden adds: "May I suggest for the consideration of my professional brethren the plan I adopt when I find it really necessary to administer alcohol in illness?—namely, to give it in the form of rectified spirits of wine, in combination with the other medicines that may be prescribed; in this way the patient does not know what he is taking, and the stimulant will not be continued longer than necessary, and the medical attendant will have the satisfaction of knowing that he is not helping to make drunkards of his patients."

**OCCUPATION AND MORTALITY.**—At the International Congress of Hygiene and Demography, Dr. William Ogle, superintendent of statistics at the General Register Office, read a paper on “Diseases and Mortality in Relation to Occupations,” and in a table of the comparative mortality of men of from twenty-five to sixty-five years of age in different occupations, he shows how the rate ranges from 100 in clergymen, priests, and ministers, to 397 in people working in inns and hotels. With regard to alcohol, Dr. Ogle said: “No man, whatever his trade, need drink more than is good for him unless he pleases. Still there are, doubtlessly, trades in which the temptation to do so is so great, that practically constant exposure to drink comes to be very much the same thing as constant exposure to such unavoidable poisons as mercury, lead or phosphorus. The trade most exposed to the pernicious effects of alcohol is, of course, that of the dealers in drink — innkeepers, publicans, and wine and spirit dealers. Dr.

Ogle’s statistical tables included the following, showing the mortality of dealers in liquor (twenty-five to sixty-five years of age) from various diseases, compared with that of men generally of the same ages:—

Diseases.	Mortality of	
	Liquor dealers.	Men generally.
Alcoholism ... ..	55	10
Liver diseases ... ..	240	39
Gout ... ..	13	3
Diseases of nervous system ... ..	200	119
Suicide ... ..	26	14
Diseases of urinary system ... ..	83	41
Diseases of circulating system ... ..	140	120
Other diseases ... ..	764	654
All causes ... ..	1,521	1,000

## British Medical Temperance Association.

—o—  
*President.*

Dr. B. W. RICHARDSON, F.R.S.

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Dr. WORTHINGTON, Rathgar, Dublin.

J. J. RIDGE, M.D., *Honorary Secretary.*

*Enfield, September, 1891.*



THE  
MEDICAL TEMPERANCE JOURNAL.

January, 1892.

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Original Contributions.

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THE RESPONSIBILITY OF THE MEDICAL PROFESSION IN RESPECT TO ALCOHOLISM.

THE medical profession, if followed in the right spirit, is one of the noblest in which any man can be engaged. It presents greater opportunities for doing good to one's fellow-creatures than almost any other. The members of the profession have the means of discovering the true nature and causes of the chief evils which afflict society, and, of all persons, should be the most capable of suggesting the best method for effecting their removal. In proportion as medical men recognise the nobility of their calling, the responsibilities which it imposes upon them, and the added dignity which a faithful discharge of their duties must confer, they increase not only their own usefulness, but their own happiness, and at the same time lay the nation under deeper obligations to them.

But whilst medical men can render most valuable services to the community, by the discovery of remedies for the cure of various forms of human suffering, they can do immeasurably more, by showing how the physical evils which afflict society to such a terrible extent can be best prevented. In view of the national interests, prophylaxis is by far the most important branch of medical science. This is a truth which is gradually forcing itself on the public mind. In the near future, the degree of esteem in which physicians will be held will be in proportion to the extent to which they exert their skill in the prevention of disease.

It is beyond question that one of the most fertile sources of disease in our midst arises out of the use of alcohol. The enormous quantity of intoxicating liquor which the British nation consumes may be to some extent estimated from the fact that, last year, the mere duty paid thereon amounted to about £140,000,000 sterling. What the total cost even in money amounted to, it is

almost impossible to say. How utterly impossible then must it be to estimate the losses the nation annually sustains, through the disease, the misery, the infamy, the blasted lives, the ruin, consequent on the common use of alcohol in our midst?

Here then is an evil of gigantic proportions, which is scourging the nation above every other, cursing the infant unborn, bringing on women ineffable shame and unspeakable suffering; blighting our youth, and sending full-grown men by thousands to premature and dishonoured graves.

Now, who witness so much of the evils associated with the use of alcohol as medical men? Who should know so well the subtle nature of this agent, the seductive influence it exerts, and the ensnaring, enslaving, and disastrous effects which in numberless cases it produces, as do medical men? To whom then more than to medical men, has the nation a right to look for exact information on this momentous subject, for sound advice as to the best means of dealing with it, and for earnest and determined efforts for the prevention of this terrible endemic, this devastating scourge?

The urgency of the case has of late been augmenting. The destructive flood is increasing in volume; a year ago the alarm was raised that it was still rising; this year it has risen higher perhaps than ever before. The question naturally occurs, What are the members of the medical profession doing in order to check the havoc and ruin which this lava stream is producing? Has the Royal College of Physicians recognised its great responsibility to the nation in this matter? Has the President of the Royal College of Surgeons taken counsel with the leading members of that body, with a view to discovering, if possible, what can be done to at least mitigate the present disastrous state of things? What! No reply? None! Sad to say, those to whom is virtually committed the care of the national health are betraying their sacred trust, by a blindness or indifference which amazes every intelligent patriot who investigates the matter? The nation is suffering year by year from evils, almost greater than have ever been inflicted upon it by pestilence, famine, or war; and yet the leaders of the army, on whose watchful care the nation depends for its safety, are slumbering at their posts, whilst the enemy ravages the land. The leaders of the medical profession are passive, whilst the health and lives of tens of thousands of their countrymen and countrywomen are being destroyed, by alcoholism.

England expects every man to do his duty faithfully, more especially when the highest interests of the nation are at stake. But it has a special claim on those great corporations, which it has created, and on which it has conferred important privileges. The

nation holds in honour those who are zealous in the promotion of *its* honour. It is ever ready to promote the interests of those who disinterestedly seek to guard and extend *its* interests. But on the other hand, it treats with contempt, and sometimes indignantly avenges itself on, those who betray the honourable trust it has confided to their care, who are lacking alike in gratitude, in patriotism, and humanity.

R. M.

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### REVIEW.\*

WE have before us again the phenomenal work, edited by Dr. Sájous and seventy associate editors, "The Annual of the Universal Medical Sciences for 1891." The five large volumes of this work contain an immense amount of matter on every disease, collected from all over the world. As a work of reference it is unrivalled. We notice more particularly that several researches on alcohol are described. Among them are those of Blumenau, which have been already noticed in this Journal. Those, also, of Diakonoff, of St. Petersburg, who undertook a course of experiments on febrile patients to elucidate the effects of alcohol on the assimilation and metabolism of proteids, as well as on the kidney, skin, appetite, &c.; 1½ ounces of absolute alcohol (diluted) were given daily, two patients being abstainers and five non-abstainers. He found that it invariably lowers the assimilation of the nitrogenous ingredients of food, no difference existing between abstainers and non-abstainers. It spoils the appetite, increases the excretions from the bowels and kidneys, and decreases the quantity of albumen undergoing decomposition in the system. When assimilation of nitrogen is only slightly lessened, the metabolism of the tissues is also lower; but where the depression is considerable the metamorphosis is augmented. Alcohol also raises the proportion of under-oxidised products. The decrease in the assimilation and increase of the urine remain more or less marked, even for some time after discontinuing the alcohol. The patient's subjective state seems to be improved by alcohol, which means that the person it influences thinks he is being improved by alcohol, while he is being injured by it.

Some results of experiments of Egleton on the action of alcohol on the circulation are also given. Their value is greatly dependent on the nature of the experiments, which is not given. But the general conclusion is that it increases the force of the

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\* *The Annual of the Universal Medical Sciences.* 5 vols. F. A. Davis, Philadelphia, New York, and London.

heart in small doses, and diminishes it in large ones. Then follow some researches of Jackimoff on the pathological changes in the nervous system of dogs slowly poisoned by alcohol. And then some conclusions of Reichert are given, to the effect that alcohol does not diminish the total quantity of heat produced, but increases its dissipation, and he supposes that by oxidation it yields heat. This is apparently only a pious opinion, not actually proved by experiment.

On the question of alcohol in therapeutics several papers are noticed, and some interesting observations, *e.g.* that alcohol is injurious in hæmorrhage; that it has caused apoplexy; that it is not to be given in delirium tremens except in old persons long habituated to its use (!); that it sometimes causes death; that, while it is useful in fever [this we do not believe] it is contraindicated in endocarditis, pericarditis, meningitis, epilepsy, eclampsia, chorea, acute diseases of the skin, and certain chronic forms, as eczema, psoriasis, &c., nodular rheumatism and the gouty diathesis.

There are many other subjects dealt with of the greatest possible value to the practitioner, but these we must leave our readers to discover themselves.



## Miscellaneous Communications.



### THE PRESENT TESTIMONY OF SCIENCE AS TO ALCOHOL.\*

By EZRA M. HUNT, M.D., LL.D., *New Jersey.*

By alcohol we mean ethylic or common alcohol. It is necessary to specify this, as there are several alcohols. Some, like methylated spirits, are added in the falsification of liquors. Amylic alcohol, variously known as grain oil, fusel oil, &c., is very frequent in ethylic or common alcohol, because it is made in the usual manufacture of spirits from corn, potatoes, or the mash of grapes, and it is very difficult to separate it completely from the ethyl alcohol. Alcohol has long had its place among poisons, and the present testimony of science keeps it there. It is a toxic,

and it intoxicates now as always. It is not the minute dose, but the full dose, of an article that tests its physiological effects. Because a minute dose does no declarative harm, it is not thereby removed from the poison category any more than are opium, belladonna, strychnine, or arsenic, because moderate doses are used as medicines.

We now ask definitely—What is the most recent testimony of science as to the use of alcohol as a food?

In order to determine this, we properly inquire, "What constitutes a food?" The answer still stands that "The food employed for nourishment of the body must have the same, or nearly the same, chemical composition as the body itself. Our bodies and

\* Written for the National Temperance Convention, Saratoga, July 15, 1891.



our foods consist of essentially the same materials."

This is found to be the case not only with animal food, but vegetable albumen, fibrin, and caseine, are scarcely to be distinguished from the bodies of the same name extracted from blood and milk. These are variously called the nitrogenous, albuminoid, cell-forming, or protein compounds constituting the "plastic elements of nutrition" which afford nutrition by "tissue building," whether for growth or repair. These include the modern division of albuminoids, gelatinoids, and extractives, all of which contain nitrogen.

The answer also stands that the other division of foods is that of respiratory, or force and heat-producing foods, in which the starches, fats, and sugars, produce a heat of vital force, which is to a great extent the measure of the comparative value of such foods. These "keep up the temperature of the body by the combustion going on between them and their products, and the oxygen of the air in the blood." These are variously called hydrocarbons, or carbonaceous aliments, as gums, starch, sugar, and fats. If we examine these, we can trace and estimate the processes by which they evolve heat and are changed into vital force, and can determine the capacities of various foods. We find in both of these classes of foods certain definite salts, which make up the one other class of foods. Water serves as a dissolving or distributing menstruum, by which interchange in the system and riddance of effete substances are secured. We are aware that chemists and physiologists do not separate these two classes of food by so hard-and-fast lines as did Liebig and his followers. But to show how fully the general principles of the divisions are maintained, although modified, and how even more accurately than formerly we are able to define and classify foods, we need only to refer to such recent statements as those from Professor W. O. Atwater, who has given to the subject of food experiment and food values such skilled investigation.

"The protein compounds, sometimes called muscle-formers, are the

only ones that contain nitrogen. According to the best experimental evidence, they alone form the basis of blood, muscle, tendon, and other nitrogenous tissues of the body. As these tissues are worn out by constant use, they are repaired by the protein of the food." (See article on the "Chemistry of Foods, and Nutrition," W. O. Atwater, vol. xxxiv., p. 73, 1887, of *The Century*.)

"The fats of foods are stored in the body to produce heat. Fats are consumed for fuel, *i. e.*, to keep it warm, and provide muscular energy for the work it has to do."

"The carbo-hydrates are changed into fat—are consumed for fuel. The modification is, that in addition to these distinct effects of these foods, the protein of foods, besides being alone the basis of blood, muscles, tendons, and other nitrogenous tissues of the body, is also available for change into fats and hydrocarbons, and for fuel. Yet it has but little of that which is called 'potential energy.'" (See series of articles above referred to.) While the protein or nitrogenous compounds are thus available, to a degree "the carbo-hydrates and fats cannot replace the protein."

So far as we know, no one by the light of more recent science pretends to claim that alcohol is a source of protein. It has no nitrogen, and cannot do any of the work of nitrogenous foods. If, therefore, it is to be searched for as a food, we are to look for its power as a producer of fat, or of hydrocarbons, or as in some other way furnishing fuel. The fuel value of a food is what is called its "potential energy."

Some time ago Professor Frankland, of London, determined the heats of combustion of different food materials, by measuring the heat generated in the consumption of various foods in a calorimeter, and stating this as their fuel value of potential energy. Our latest scientific researches have shown that the heat thus generated in the calorimeter is "an accurate measure of the energy developed by the same materials in the body." This energy is the result of a process of combustion

by union with oxygen, as when fuel is burned in a fire. Modern science, at least, has revealed to us no production of energy without the evolution of heat. Heat, as produced in the animal, is only known as a result of the process of combustion. We can measure thus the energy developed by the consumption or combustion of these foods.

It was formerly supposed that the ingestion of alcohol increased bodily heat and temperature, and so it was concluded that it acted just as others of the force or energy-producing foods do when, by entering into combination with oxygen, there results carbonic acid and water with the production of heat. But the experiments of Prout of England, Bûcker of Germany, as followed by the evidence of Anstie, Richardson, Brunton, Atwater, Hammond, Davis, and others, show that "alcohol does not form tissue, flesh, or fat, and apparently has no effect as a fuel." The testimony of modern experiment is uniform in showing that alcohol "diminishes temperature, and is a sedative and paralyser rather than a stimulant."

As a result, medical practice now recognises it as one of the medicaments for reducing temperature. No one has yet explained in what way a fuel, or heat, or force-food, can do this. But why it does this is not so difficult to explain; it is because its action is neither that of a food, or in any true sense that of a stimulant. Dr. Sidney Ringer, in a report made in 1883, as a result of experiments on the action of alcohols upon the heart, records the effect as "clearly paralyzing, and that this appears to be the case from the outset, no stage of increased force of contraction preceding."

It now finds its place in the *materia medica* as a "cerebral sedative," to which class belong narcotics and anæsthetics, the effects being chiefly expended on the nervous system. These diminish and suspend the functions of the cerebrum after a preliminary state of excitement. Bartholow puts under the same head opium, chloroform, chloral, and the bromides. More recently Prof. Martin, of Johns Hopkins University, fully confirms these views.

Its effect on the circulation is chiefly due to its effect on the cardiac and vaso-motor nerves which are distributed to the blood-vessels, and is that of an anæsthetic or sedative. It diminishes sensibility, and often does so to actual paralysis. Thus the whole direction of evidence, both of recent chemistry and recent physiology, is to deny any place to alcohol among the food products. As never before, modern chemical investigation, with its greater perfection of methods, fails to find it either amid constructive, reparative, or energy-producing foods.

Hence the last few years have been fertile in hypotheses by those who have, from immemorial custom, looked upon it as a stimulant and force-producer, and who seek to find evidence that it originates or conserves force.

These arrange themselves at present under two heads. The first speaks of it as among the food adjuncts, accessory foods, or possible foods. Prof. Atwater, as to these, quotes from Prof. Forster, a well-known experimenter, in speaking of what the Germans call *genuss mittel*—appetisers is perhaps our nearest corresponding word. He shows, by actual experiment, that these have been overestimated as helps to digestion. He then refers to alcohol as one of these appetisers or food adjuncts claimed to aid digestion, and says of all of these: "The quantities digested appear to be less affected by flavour, flavouring materials, and food adjuncts, than is commonly supposed."

The next contention has been that, although alcohol does not respond to the usual definition of foods, it is an accessory in that it retards "regressive metamorphosis, and so adds to the physical force." Now, all chemists and physiologists are familiar with the metamorphosis which takes place under the general name metabolism. Life itself is a process of daily income and expenditure, the income being the food that is digested and appropriated. Some of this is used for construction of new tissue, some for force and repair. The outgo is in the form of carbonic acid and water by the lungs, kidneys, and skin, or in that of urea and allied products that

escape by the kidneys. This appropriation of foods by the system, the combinations made with used-up material, and its removal, constitute the uniform and indispensable phenomena of life. The contention of those who claim alcohol as acting the part of an accessory food, is that somehow it delays metabolism, and causes what has been called a "retrograde" or "regressive" metamorphosis, and so husband the resources of the system. This is equivalent to saying that it interferes with the natural process by which life is conserved. The advocates of this view are singularly deficient in facts needing to be furnished by chemistry or physiology, but rely upon what they call the experience of practitioners of medicine.

Now, the physiological conclusion as to any substance which did actually interfere with the natural phenomena of disintegration and of life, would be that it would prove an embarrassment to health, and promote those various degenerations which are so characteristic of the effects we see in chronic alcoholism.

After careful search, we have been unable to find any chemical or physiological facts which warrant the assumption that alcohol fortifies life by any such process. It is not suspension of life processes that we want in any such emergency, but rather the most skilled use of the most available tonics, and the avoidance of excessive wastage by not calling upon the body to perform its usual service. Dr. B. W. Richardson, of London, so eminent as a physiologist and as a medical practitioner, in a recent note to me in answer to an inquiry as to the effect of alcohol in this respect, says: "I have no reason to believe in delay of metamorphosis, or if there be such I should consider it injurious." He adds: "I think in this country the appreciation of alcohol, and its defence by leading practitioners in regard to food value, has much decreased." We are aware that Dr. Binz, of Bonn, perhaps the ablest advocate for the medicinal use of alcohol, claims that it is an "economic factor." But it is worthy of note that he only speaks of it as "available on

the sick-bed," and more than intimates that its use in any healthy subject is an abuse. If it is an "economic factor" in any food sense, it could only be so by being consumed in the organism. If so consumed, it should respond to the tests of the foods, which it does not. We know of no new light from physiology or chemistry on this hypothesis of delayed metabolism since we fully examined it in the little treatise on "Alcohol as a Food and Medicine," 1876. and so refer to the arguments and facts there contained (pp. 49-56). We are not aware that anyone has brought out any chemical facts, or any facts, as to the physiological process of digestion, that at all substantiate this view. Indeed, most of those who propound such a view are fair enough to offer it only as a plausible explanation. Thus Hammond, in his plea for regressive metamorphosis, says: "It is not at all improbable that alcohol furnishes the force directly, by entering into combination with the products of tissue decay, when they are again formed into tissue, without being excreted as urea, uric acid, &c." This is a metabolism, which no one has yet found, and to which chemistry or physiology afford no parallel.

Professor Bartholow, who also refers to delayed metamorphosis of tissue as a probable use of alcohol, sees the chemical and physiological dilemma, and so without the needed explanation adds the ominous sentence: "As alcohol checks tissue metamorphosis and thus diminishes the evolution of heat and force, it might be expected that the produce of its own oxidation would supply the deficiency, but this is not the case." If such is not the case, why not? How does alcohol do this strange work of arresting tissue metamorphosis and so conserving health without the usual relation to oxygen?

We have a recent opinion (March, 1891, from Professor A. B. Prescott, of the University of Michigan, who has perhaps studied the alcohol series with more thoroughness than any chemist in this country. He says: "In my judgment, alcohol is not a food. To lessen tissue metamorphosis is not



to serve as a food, but is more commonly to antagonise the service of food. If alcohol had no other action than to suffer oxidation, it would be a food. But the chief action of alcohol is always that of a neurotic. Its total action is to lessen the total oxidation in the system. So its service is not that of a food, but that of a neurotic." The fact is, that since we have come to know through physiological chemistry more definitely what chemists understand by "metabolism," the phrase "regressive metamorphosis," or "delayed metamorphosis of tissue," is retired from service. If any argument is made on that basis, it must now be called arrest of or interference with vital metabolism, and so chemistry and physiology are rightly called upon to furnish the facts and experiments illustrating this process. This is something that no one has yet done.

The trend of scientific research, therefore, up to the present moment is more and more against assigning any definite food value, direct or incidental, to alcohol. We know neither the calorimeter or chemical laboratory or physiological experiment that shows any such a result.

We are not disposed in this discussion to minimise the import of any facts as to alcohol in its relation to man, or even to discard testimony which claims the basis of experience, even though it has no scientific facts to confirm its findings.

We will not even press the criticism that so many physicians have become prejudiced through the force of habit or through their own moderate indulgence in table appetisers, although many of them are not slow to insinuate that medical temperance testimony is prejudiced because of abstinence. We therefore next inquire, what is the present testimony as to alcohol of those who study it as clinicians, and who consider it with reference to its actual effect in disease?

Our reply to this is, that the result of the last fifteen years has been greatly to constrict the sphere of alcohol as a medicine, but nevertheless to insist upon its value and avail-

ability in the class of cases to which it is adapted.

Just here we beg to say that in our judgment some advocates of total abstinence have felt themselves called upon to dispute the possible value of alcohol as a medicine to a degree not at all necessary to sustain the doctrine of total abstinence. The claim that the value of alcohol as a medicine depends upon its availability as a food needs to be dealt with, because arguments as to that might, by implication, refer also to a state of health. But it is all gratuitous to assume that because to a restricted degree alcohol may be used as a medicine, its value depends upon any such principle.

We accept ethers, aldehyde, and other products allied to alcohol, as well as digitaline, morphine, strychnine, quinine, &c., as having medicinal value, when we do not know the *modus operandi*, and when we know them to be inimical in health. We at once grant that there are states in which small doses of opium, of strychnine, of quinine, and many other substances, when skilfully prescribed, help invalid life over some of its hard places. So there can be no doubt that a little alcohol amid the acids, the ethers, and the aroma of some liquors, or with the combination of fruit juice, malt, &c., may carry the system over some temporary infirmity, as the whip may cause the horse to leap forward when he cannot trust to his life forces.

If the hospital ambulance picks up a man well-nigh pulseless, the physician may fill his hypodermic syringe with brandy and digitaline without any discussion of food values or total abstinence, if so be statistical facts and clinical experience have shown this the most available substance for well-nigh mortal heart failure. The advocate of total abstinence may well place himself upon the scientific basis, that a chemical substance that is shown to be a toxic—a poison, a neurotic is never needed in the healthy human body, and is not to the slightest degree indorsed for any use other than medicinal by the fact that it may be available as a medicine. So far from that, the legitimate



contention is, that any such substance, because thus available, is all the more to be guarded against any use except that which is specifically prescribed in skilful adaptation to the symptoms in hand.

It is one of the satisfactions of modern medicine, that amid much that must ever be empirical, it seeks to define more closely the indications and the limits of medicines, and of alcohol among them. While there will ever be a host of promiscuous doctors, hypothetical doctors, experimental doctors, and "follow the fashion" doctors, and now and then one of these among the lights of the profession, there is nevertheless a prevailing tendency to precision. There is also in some respects, both in the light of science and clinical record, grounds for closer definitions of the real availability of medicines. The debate in the fall of 1888, in the Pathological Society of London, led Dr. J. F. Payne, Dr. Lionel Beale, and Dr. George Hay, to express very significant opinions representing the best medical talent in London.

Dr. Payne spoke of alcohol in its terrible effect on the functions of organs, its poisonous and destructive work on tissue, and its interference with oxidation. He was fully supported by Dr. Harley, who claimed that "very moderate drinkers were in reality the most numerous class of alcoholic victims." Dr. Lionel Beale repeated and emphasized his well-known views. Since then Dr. Harley has given a series of lectures on the subject, which well represent the most thorough recent clinical beliefs as to the very restricted availability of alcohol in disease, and its organic effects on moderate drinkers.

While exact clinical experiment and experience now narrows the sphere of alcohol, it regards it as available in sudden shock from injury, chiefly in the form of hypodermic injection with digitalis, and as also for temporary use in sudden prostration until nutrients and other restoratives become preferable in its place, as is quickly

the case. There is a narrow stage of fever and debility in which alcohol may be available. But it is to be borne in mind always that the stimulant effect is short, and apt to be followed with depression, and that its chief effect is that of a neurotic. Since we have come to know the value of the various peptonoids, and of their combination with beef, gluten, milk, and flavouring oils or condiments, there is far less need of alcoholics. The appetizing effects of wines, &c., result full as much from flavours, such as ananthic ethers developed in them, and from the acidity, as from the alcohol itself.

The fattening effect of beer to some results from the malt, &c., which now has an excellent substitute in the syrupy malt extracts. Alcohol, as it comes to derange organs, especially the liver, has much the same effect as is produced by a forcing process upon the livers of geese, which become abnormal. The more such geese weigh, and the better they look, so much the worse for the geese. No doubt by the clogging of organs there may be retention of materials and pent-up secretions which add slightly to bulk or weight, but it is only a storage tending to disease, and not a storage of health.

The day is passed when upon dietetic or medicinal grounds there is any indispensable call for the moderate or habitual use of alcoholic beverages.

In the midst of all the various alcohols and of all the manufactured and concocted mixtures which are now sold, as if they were the real and pure product of the grape or of alcoholic distillation, we have better known tonics and nutrients which effectually take their place, except to those who wish them as pleasure giving drinks. As the design of this paper is only to state the finding of scientific and experimental research as to alcohol and the judgment of skilful and critical clinical experience we leave to others many arguments which go to emphasise the convictions which experiment and observation force upon us.

## DR. RICHARDSON, F.R.S., ON TEMPERATE INTEMPERANCE.

AT a Conference of the National Temperance League held in Plymouth on the 1st of October, Dr. Richardson took as the text of his evening address what he called "Temperate Intemperance." He opened by saying that as all great progresses have their seasons of ebb and flow, so abstaining temperance must submit to that influence so long as doubts remain. We must be assured on that point. We might suppose from what has been going on in Plymouth this week past, and from the presence of this influential and healthy audience of men and women largely pledged to total abstinence, that the temperance cause was not only on the crest of the wave, but on the crest of a tidal wave that would carry all before it. It is not so. There are two currents of abstaining temperance in progress, one on the surface and visible; the other a strong tide, not much heeded, although the strongest, but still there is not the advance that ardent minds require. The visible current is the one that comes first into view at this moment, and it ebbs and flows; ebbs because of an opposition which is as yet overpowering by the force of its attraction, the force of a powerful public opinion that has to be overcome. For my part, said the speaker, "I think the exhibition of this public opinion in opposition to us is not to be regretted. It shows us our own weakness and our own strength; and, better still, it shows us the weakness as well as the strength of those who oppose us. When under these circumstances we win a point, we make it good; we convince in assent with the will of the convinced, and less than that is useless.

"A man convinced against his will  
Is of the same opinion still,"

and never in any controversy was this pithy saying in better evidence than in the alcohol controversy. I have seen many men convinced and become, on pure conviction, pledged abstainers; but their will did not go with their conviction, and so they remained in the

end, what, not to offend them, we will call moderate drinkers. We have consequently to capture will, as well as to produce conviction; and here at present lies our great difficulty, a difficulty I propose briefly to explain that we may the better see the way we should go.

## THE GREAT OPPOSING "TEMPERATE" SECTION.

In the contest in which we are engaged there are three sets of persons. (A.) The total abstainers. (B.) The confirmed and acknowledged intemperate. (C.) Those who call themselves the moderate or temperate drinkers, and who scrupulously sever themselves from the immoderate or acknowledged intemperate class. Class B, the intemperates out and out, need not enter into our argument. Their extravagances are all evidences on our side, and I shall not to-night treat upon them even as examples. If we had merely to fight them we should win without credit, for they are neither more nor less than the wounded and disabled of the army of class (C) that is opposed to us. Usually they fall into our hands as prisoners of war, deserted by their own people, and extremely troublesome to us; but they are of no importance in the controversy at this moment. The men we have to deal with are the so-called temperate class, amongst whom there are some who without being strictly abstainers are so very moderate they are practically abstainers, and are so convinced that we are nearest to the truth, they are silently one with us. I will not meddle with them. Our real opponents, although they may be considered temperate, are sufficiently under the influence of their friend, the "good gift," as to be pugnacious in its behalf, and they are often so much under its influence as to be fanatical. In respect to the god of their idolatry they have all kinds of inspirations; when they see the beautiful grape hanging as luscious fruit, they praise it not as a fruit but as "mother of mighty wine;" and they say of wine

that "it makes a mortal half divine." They declare it warms them when they are cold, and cools them when they are hot; they call for it when they are empty, and they call for it equally when they are full. They resort to it when they are weak, and they rejoice in it when they are strong. They say it makes them enjoy and digest a hearty meal, but they despise as a glutton the poor abstainer who can digest equally well without tasting it. They have all kinds of "fads," to use a vulgar term, in respect to it; one likes it as gin, a mixture often of poisonous things; another as whisky, rum, or brandy; a third as wine of some sort; a fourth as malt liquor; each compound having its own special virtue. If it be clear that they are indulging their fanaticism a little too far, and are just entering the borderland of danger, they tell us that to live a year or two longer by carrying out total abstinence is not worth the sacrifice of the enjoyment of a glass of good wine; and when they find, it may be a little more than middle life, that the said glass is hastening the catastrophe, they are the first to discover how unjust a thing it is that when they have made their daily bread for the future without further labour they must lay it at the mouth of their sepulchre. They tell us he is a fool and to be despised who cannot so control himself as to keep his indulgence within due bounds, and they are everlastingly asking, What are the due bounds, and how are they to be kept? Are they kept most safely on spirits, wine, or malted drinks? They affirm that we abstainers show the white colour in our countenances, and to indicate how robust they are they mount the red and keep it mounted as if they wished to renew the wars of the roses. If they go to a funeral they think it no wrong to encourage their grief in a cup; and if they go to a feast they think it impossible to be merry without the same assistance. If a man is faint they give him a glass to lift him up, and if he is excited they give him a glass to keep him quiet; if a man cannot sleep they suggest an alcoholic potion as "a nightcap," and if they want him to hold watch all

through the night they prime him with a glass to keep him awake. In all these examples, too, let it be observed, they only do what is moderate. What they carry out is drinking as distinct from drunkenness.

It is a part of the argument of these our moderate opponents to declare that under total abstinence there is an increase in the amount of disease, and that even though the death-rate may have been reduced, and the life-rate have increased, there is more feebleness abroad, and lower forms of disease, owing to total abstinence. If so, in every abstaining club and community more doctors ought to be required than in the old and hilarious days. The late Dr. William Farr told me that when he commenced his career as a statistician there were so many days of sickness in the community that one medical man was required for 900 persons of a mixed population. In the later years of his life, under the improving health of all classes, he computed that one medical man in 1,600 people would be ample for all needs, except during some great visitation like cholera. But I not long since visited a town of abstaining people where 4,000 persons, all engaged in active and laborious work, and all in prime health, had not sufficient sickness amongst them to support even one medical practitioner—a strange circumstance, until it was explained that every man, woman, and child was a total abstainer. On this point, therefore, our opponents are, at least, in confusion, and I venture to think, in error, a suspicion sustained by the curious diminution of days of sickness amongst clubs of working men carried out on the abstinence principle in comparison with clubs carried out on the moderate principle. I owe an old and able acquaintance, who has alarmed some parts of the world by a declaration on the matter now before us, no grudge; on the contrary, I wish him all that length of life and happiness total abstinence gives to its favoured children. But if I did owe him a grudge, I could wish for no surer way of gratifying it than by seeing him removed



from his present position, and doomed to seek his livelihood, in the absence of a single rival, as a physician without being an accoucheur, in a well-to-do community of some 4,000 total abstainers. I warn even a young man from such an experiment. He had better change his profession, and take to the church in the character of the historical mouse of that edifice than do anything so certain to fail. If he be a good surgeon to boot, he will also fail, for these wretched teetotalers not only shirk accidents, but, when wounded, heal so fast there is neither pleasure nor profit after the first skilful dressing.

#### REPETITION AND AUTOMATIC RHYTHM.

Repetition soon becomes automatic, soon becomes rhythmic, and to automatism and rhythm working together there is only one end, and that end is death. To automatic rhythm we succumb easily enough without alcohol. The heart of man continues to beat from birth to death without his consciousness, by no other regulation than automatic rhythm. The heart asks for blood, and getting it, goes on its accustomed course. This is a natural act, but a similar act may be acquired, and it is acquired in those who ask for alcohol, and feel they cannot get on so well without it as with it. Imperceptibly they become the temperate intemperate. They may be half divine compared to us, but it is a queer divinity. The very difficulties felt in coming back from the artificial automatic rhythm to the natural are proofs of the serious nature of the aberration. They who feel the want at particular hours, in particular quantities, and under particular circumstances, soon find that the more brilliant they become the more they want the cause of brilliancy. The want supplied brings its physical cares. The heart beats more quickly to keep the fuel of the body in motion; the breathing is quickened to keep the animal fire alight; and the alcohol, assiduously cumulative, especially in the membranes and in the nervous centres, is being laid by until at last what may be called an alco-

holic organisation is instituted, in which the elastic tissues lose their elasticity, and in which changes of tissue degeneration proceed, slowly or rapidly, as sure as the earth proceeds in its course round the sun. We need not dispute the greater brilliancy of the living organisation thus modified. It has its own seasons, its rise, its height, its decline. Our argument is simply that we do not ourselves wish to purchase the brilliancy at the cost it entails. We do not court a new automatic rhythm; we are water engines by natural law, as all other living things are, and we feel it best to remain as nature has ordained it to be. (4) In all sincerity we do not see that by our plan we lose anything of value which the moderate drinker gains. We are emphatically free of his danger of coming, without knowing it, under the automatic rhythm of alcohol; of becoming temperately intemperate; of becoming absolutely intemperate. These, at all events, are advantages.

#### THE BODY A WATER ENGINE BY NATURE.

Neither do we feel that by remaining, under the government of nature, as water engines, we are vital engines of lesser power, in a physical point of view, than we should be if we let alcohol diffuse with the water we take into our organisations. The balance of evidence as to strength, endurance, and precision lies, in fact, on our side of the animal creation; and if it be said of us that, in the human family, we bear the pale face, we may fairly retort that if colour be sign of strength, and white be pitted against red, then the white face is the strongest, as it is the most natural. To blossom like the red, red rose and darken like the mulberry is not, we think, the outward and visible sign of inward strength, physical or mental. (5) We know, and all who are candid know, of a truth that, amongst those who abstain from it, there is a steady vital activity which does not pertain to those who believe and follow the dogma of the "diffusion of useful alcohol." The so-called temperate



are imperceptibly intemperate in so many instances it is impossible, we feel, to say where temperance ends and where intemperance begins. If we want to insure a life we prefer the staunch abstainer to the doubtful temperate; if we want to insure from accident we do the same; if we want to have a man to whom we would entrust some great responsibility, the driving of an engine, the supervision of fire, the protection of property, the tending of the sick, any post where there is most risk and danger—and the greater the risk the greater the search—we seek those who are absolutely safe from the artificial self-inflicted automatic rhythm. The abstainer's heart may be slow, but it is sure; it is as the heart of the lion is, and the lion, it is a fact beyond dispute, is a life abstainer. Balancing, therefore, the absolute temperate with the temperate intemperate, and giving over the absolutely intemperate to those from whom they spring, we incline to forfeit brilliancy in favour of solidity of life, and to be one with nature rather than two with alcohol. In plain words, we disclaim alcohol as being in any sense a part of the natural scheme of healthy and useful vitality. If it had been intended for that end we should not have to manufacture it. It would have been implanted for us, distilled for us, delivered to us on the same gigantic scales as water is implanted in the ocean beds, is distilled by the sun, is condensed by the everlasting hills, and is carried to us and to every creature of life in river, lake, rivulet, and spring. We are water engines all, and the Lord of Life is the engineer in whose unapproachable wisdom we can well afford to confide.

#### THE PRIME CURRENT OF THE REFORMATION.

I said, as I opened this short address, that there were two currents of progress in the abstaining reformation. I have spoken of the current that ebbs and flows and is visible to the eyes of men. Let me refer, in conclusion, to that under-current, that prime and princely spring, on which all our hope in the

future rests. Except they are touched by the artificial automatic rhythm of heredity, all our newly-born are ignorant of the brilliancy emanating from the alcoholic fire, and until they swallow that fire they are, if they be fortunately circumstanced, active, vigorous, engaging, observant, happy. They require great strength that they may grow into women and men. They work, they play. They do it all as water engines. Why shouldn't they go on doing it? There is only one reason, and that as bad a reason as ever was known, namely, that they are taught by their elders to depart from the way in which they are born to go. They are trained to break eternal law; to swallow fire. This is what has been, but here is our hope, that they are now being largely trained to keep eternal law. Let but one generation hold its place, keeping the law inviolate, and the whole victory is on one side. The arguments we now hear about the "diffusion of useful alcohol" could never occur to the human mind freed from the training on which that shameful delusion rests. The arguments about sensations, and needs, and services from alcohol, must cease with the thing that first makes them and then exalts them. Let it be the duty of every abstainer to confer, through free education, the freedom of absolute temperance on every one born, from birth to death. Then very soon nations themselves shall rejoice in the strength of the purest vitality, and the innocence of a little child shall lead them from the bright morning of life to the close of the happiest, most useful, and longest day.

#### IDIOSYNCRASY AND DRINKING.

They who oppose total abstinence say that we abstainers have an "*idiosyncrasy*" for keeping up our strength under abstinence. I am constantly told this, and am adduced as a man who won't see that, although I can keep strong on water—that is the way it is put—other people cannot. Well, but I observe, the revered Cardinal Manning, and the Bishop of London, and Dr. Nathan Davis, of Chicago—who remembers that great city as a

small village—and hundreds more of active men, all keeping up their strength on the same system. I see nationalities of strongest men keeping up their strength under the same system; and if I turn from our own earth-mates to those of the lower creation, what are the wonders I behold? How poor is human strength to that of an elephant? A whale by one movement could cast twenty men stronger than Samson himself into the air; a pigeon would easily go ten miles to one accomplished by a man on foot; and the racehorse—but I need not push the point further, except to intimate that these competitors in physical powers are all working on the total abstinence system, and that if we wished to bring them down in physical power it would be by placing them on the moderate system of wine, spirits, or malt liquor.

Is there an idiosyncrasy on this matter of alcohol and its effects on animal life. Certainly. An idiosyncrasy is a peculiar condition of constitution by which one animal body is specially influenced by a certain thing or by certain things which do not affect the general organisations of life and living action. Drinkers of alcohol, moderate or immoderate, are affected by a special idiosyncrasy, in that they have a *penchant* for one particular thing which gives to them a particular organisation, under which, like *Oliver Twist*, they “ask for more,” and getting more stand at peril, always on guard, and even then always in danger. We have heard it said recently that alcohol is no more a source of danger than fire. The analogy would be good, excellent, if we could swallow fire, and if, having swallowed it, the swallower cried for more until he was slowly or quickly consumed. But here is the difference. A man cannot swallow fire, and he can swallow alcohol, which latter being swallowed he does cry for more, until he is slowly or quickly consumed. This is all the difference in the world. The burned child dreads real fire; the burned alcoholic courts the alcoholic burning.

#### THE SIMILE OF FIRE.

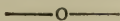
This simile of fire, although phy-

siologically it is but a simile, how true it is. If we could divide all living creatures into two sections, the infinitesimal section in the world of life that takes in alcohol, and the mighty section that takes in none of it; and, if we could see through the two as transparencies, how striking and instructive the picture would be. The alcoholic section would indeed be seen to burn most freely, until we came to those who, overwhelmed by the excess they have consumed, were all but extinguished and burnt out. The moderates, they who assume to pity and despise the intemperate, would shine out with a light peculiar to themselves yet showing by flickering intervals how near their temperance edged on intemperance, and how imperceptibly to them the phenomena of temperate intemperance may be displayed in them. Practically they would all exhibit the alcoholic fire. One would show how the alcohol brightened him up when he had “run down;” another how it warmed him; a third a little too hazardous for once, how it gave him “hot coppers;” and, a fourth would illustrate the fixed glow of the fire on his glowing visage. Yet they might all be moderate men, distinct entirely from the dark, leaden, helpless collection, who, through the moderate path, had landed themselves into the living death. If we watched them minutely, we should see, too, under the brilliancy of their superior fire, that their pulses were quicker than those of their fellows, who let their watery bodies, made by nature to work on water, depend for motion on that neutral and potent agent alone. We should observe that their brilliant light day by day went somewhat quickly and quietly down, unless the sustainer of it were somewhat more frequently renewed. We should observe how for a season they were olithe and gay, rejoicing in the renewal of their youth in each cupful they quaffed. We should hear them boasting of their strength of mind and limb, and should not wonder at their contemptuous raillery on ourselves, our tenets, and our practices. Let us, however, be fair to them. Let us admit that if

they are not such steady lights as we are they surpass us in temporary brilliancy. I, for one, am quite ready to admit my own dulness by the side of them; let us all admit the same, and allow the truth of what they contend for. They speak as they feel, and what else can they do? Let us believe them, for they on their side speak truly. The question with us is why we don't follow in their brilliancy; why we do not set up their idiosyncrasy; why not become imbued with their fanaticism; why not leave the lower and grovelling ranks of the creation at large, acknowledge that "wine's the soul of man below," and from our common mortality be made "half-divine." What fools we must be to grovel as we do! What cowards we must be not to feel that raised to such brilliancy we cannot reach whatever height of brilliancy we like, and without danger stop there!

Well, we have a reason for our obduracy, nay, many reasons, which, dull as they may be, possess us. (1) We have trust in Nature, and belief that we are not wiser than she is in regard to her designs; if she has made all the phenomena of animal life to work by water power, and has supplied all the conditions and appliances for such work, we cannot help it; it is the Divine will, and that will be done. (2) We admit that man can change the order of nature by an instrument in which there is a new and third element; we admit that he can produce by the use of this instrument, introduce a new kind of life; we know that he could extend that new life to all life: to fish of the sea, to fowls of the air, to beasts of the field, to creeping things, and to all mankind, male and female, through all phases from the cradle to the grave! It is a wonderful art; but follow it up. What if

all living things were transformed by it into moderate drinkers, with the usual contingent of drunkards from amongst the weaker of them? What if all creation were made half divine instead of a few men and women specially blessed? What if the elephant were endowed by it with more strength and vitality and brightness of intellect; the elephant is a sagacious creature and powerful; it would restrain itself to what was good for itself even better than some men; and see how much more sagacious and powerful it would be if, like man, it were made "half-divine." How useful it would be so super-endowed. We admit the power; but, in our judgment, all creation works better without it, and as man merely belongs to all creation, he, too, comes under the rule of creation, and is in like manner better without it. All creation does well without it; why should man be an exception? (3) Looking carefully at the brilliant human brotherhood that supports the "diffusion of useful alcohol," and picks up its delightful inspiration from that diffusion, and we are not entirely satisfied with the results. With the debris of that brotherhood, with its murderers, madmen, paupers, paralysed and otherwise death-stricken, we are so profoundly dissatisfied that we would be led to close up the sources of such gigantic evils, even if some considerable good came out of the same sources; but we are not convinced about any good. "The diffusion of useful alcohol" is, we think, not proved, diffuse it ever so gingerly. The quickened throb of life which changes the brilliant and exceptional community of temperate men, can only be sustained by repeating the cause, and repetition is a fearful and lurking degenerator.



DR. RICHARDSON presided over a morning Conference held at Plymouth, on the 1st October, when he discussed the question, "What separates the members of the medical body in the matter of Temperance?" A paper was also read by Dr. Robert Martin (Manchester), and addresses were given by Dr. C. R. Prance, Principal Chapman, LL.D., and other gentlemen.



## DOES SCIENCE JUSTIFY THE USE OF ALCOHOL IN THERAPEUTICS? IF SO, WHERE? WHEN?

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THE time is upon the profession to review and recast its notions concerning the use of the alcoholic compounds in the treatment of disease, grounded upon what they are, what they do, and what they do not do; for Argus-eyed science of our day shows alcohol to be widely different from what was supposed of it, in the years that are past. If our fathers drove their cows around a stump to make them give down the milk, we are not bound to do the same. Moreover, the liquor treatment has come to have a moral bearing, which both the human and the divine of our profession requires that we respect. And let me here add what the learned President of this Section has said: "The influence and teaching of the medical profession on the great drink question is most imperatively demanded." Yet I radically differ from him in another statement: "Medically and scientifically, the whole subject is the polar region of mystery."

Certainly this speaks poorly of the candour of those who still prescribe it. If so, then why not leave it alone?

Bunyan got his hero into the Slough of Despond; but does any one in his senses believe that the Slough of Despond is a necessary part of the pilgrim's pathway?

My subject compares to my time, to-day, like a man's hat to a boy's head. Hence I can touch only a few points, and that in the most unsatisfactory way—of leaving out most of the proofs of my positions.

### ALCOHOL AS A RESTORATIVE.

This term includes the tonics—agents which increase strength and overcome languor—the promoters of the constructive metamorphoses, and the force producers. It excludes that

which adds nothing, only whips out the strength the body already has. Restoratives are in great demand. The physician to-day prescribes them more frequently than any, if not all, others. He feels, when doing so, he is adding to the sum total of vitality.

Considering alcohol in this relation, we meet the fact that its chemistry is squarely against it. Not a particle is incorporated into the bodily tissues; so, to say the least, he is visionary in the extreme who prescribes it with the idea that it is incorporated, or that it incorporates any thing else.

It contains carbon, as all carbohydrate food substances do; but that carbon cannot be extracted from it as from them. They all undergo certain changes, as chemistry shows; while it enters, pervades, and escapes from the body as alcohol, no proof of its transformation, either in the digestive tract, the blood or the tissues, ever having been found. This one fact of its indigestibility nullifies all arguments in its behalf as a force producer. If any contend that it does change, let them give the evidence.

The various symptoms, commonly attributed to this supposed change, are very satisfactorily accounted for from its known irritating and anæsthetic actions. Yet if we admitted all that has been claimed for it in this respect, we concede very little, for Voit and Subbotin say: "In the amount we can take without injury, its importance as a nutriment is too small to be considered." But we have no warrant for the concession.

That all the liquor taken cannot be recovered, we allow. It is the same when alcohol is mingled directly with freshly drawn blood. But the mere loss of a portion is not a proof that that portion changes and becomes



useful. Such conclusion is not scientific nor rational. The loss of my knife is not proof that Jones has it, or that he stole it. As well contend that Stanley's "rear column" found Emin Bey. Better do as Hahnemann did—jump from the tangible of medicines into their spirituality. Right reason requires that we withhold our conclusions till we establish the premises. In the light of the foregoing how unreasonable were the assumptions of Dr. Todd: "Alcohol is the most easily digestible and assimilable of substances. . . . It oxidises in place of the tissues." Equally absurd is the theory that alcohol conserves tissue, as we showed in our essay last year.\*

That it is sustaining because some persons have lived a long time while taking it, is not conclusive. There is every reason to believe they would have done better without it. Had Dr. Tanner, and the others who fasted longer than he, depended on alcohol rather than on the store of nourishment in their bodies with water to dissolve it, it is unquestionable that the undertaker would have had them long ere the forty or forty-five days expired. But, so far from acting as a restorative, abundant careful observation shows that liquor actually depreciates the strength one has. It is the strong, not the weak, who bear it—not the young, the feeble, and those addicted to it. In other words, the strong can resist it, while the weak cannot.

Thus speaks Dr. Chambers: "Above all, I would caution against employing wine as a substitute for the true restorative treatment." "To call alcohol food," writes the Editor of the *British Medical Journal*, "in the present state of our knowledge, is an abuse of language." "The popular belief," says Dr. A. Mullan, "that beer and other alcoholic drinks are strengthening, is a mistake, a delusion,

a mere superstition, which receives no support from science."

#### ALCOHOL AS A STIMULANT.

This class adds little or nothing to the bodily forces. They call out what was in store, using it up before its time. They act promptly and for the time only. Their repetition is a matter of much discretion. They take from the sum total of vitality, and lead to exhaustion unless wisely guarded. Alcohol has so monopolised this term, that alcoholics and stimulants are at present quite synonymous. But is not the term mostly misapplied when applied to alcohol? When and where does it summon out the forces of the body the better to resist opposing forces? Never, except in very small doses, much smaller than we should be likely to give, if we give it with the idea that it is stimulating.

If we, for a moment, lay aside our pack of vague notions, and sit down at the deliverance of instruments of precision, we shall learn for certainty that any considerable doses do not stimulate, but depress and weaken. "Careful observations," Brinton states, "leave little doubt that a moderate dose of beer or wine will, in most cases, diminish the maximum weight a person can lift." So Liebig: "The circulation will appear accelerated at the expense of the force available for voluntary motion, but without the production of a greater amount of mechanical force. It is attended with an inward loss of power." Prof. Marvaud of France, Zimmerberg of Germany, Richardson of England, and Martin of Baltimore, have wrought at this and find alike. According to Prof. Martin, as much as an ounce of whisky or brandy always lessens the force of the heart-beat, though generally increasing its frequency. Prof. W. E. Ground, of Toledo, asserts "that it acts as a paralyzer from the first, through paralytic effect on the nerve centres, as in experiments where the inhibitory nerve is cut." Alcohol adds no heat. It strengthens neither body or mind; and this is not only science, but the common sense view of common experience. Alcohol agitates the

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\* "Does Alcohol Conserve Tissue?" in pamphlet. Free to physicians who send to the author for it. See this much more fully shown in the author's "Alcohol Inside Out," 12mo, 350 pages, mailed for 1 dol.

system, while nutritive agents perform their work silently within, leaving other functions undisturbed. Moreover, it has certain drawbacks which stand in the way of its repetition, which proper stimulants do not have. Cold, or mechanical irritation to the stomach, increases heart frequency, and heart and vascular force. For the instant, small doses of spirits will do this, but, directly after, the absorbed portion begins to paralyse the nerves and capillaries. Hence heat, hot drinks, the aromatics, &c., are the proper means to warm a chilled person. They do not tumble the blood into the external capillaries as alcohol does, to the neglect of the more important internal parts. Whales are made to resist cold and not heat. Their exterior is in contact with the waters of the polar seas, while under their skins is a thick layer of non-conducting blubber, beneath which their warm blood circulates. Our bodies are made to resist both heat and cold. Exposed to the latter, perspiration stops, the skin contracts, forcing most of the blood beneath the subcutaneous layer of fat, where its heat is protected. A drink of grog unlocks the skin and drives the blood to the surface, dissipating its heat, just as would happen to the whale if his blood were brought to the outside of his blubber, when it would lose temperature and his heart chill. Not only is alcohol bad in this way, but it does more; it puts a wet blanket over the internal fires, by shrinking and depressing the functions of the blood cells. So, so far from its being a stimulant to bring out the forces of the system to resist cold, it is a traitor, and appears doubly armed on the side of the enemy. Arnold had his good qualities; so has this. If a person has been exposed to severe cold, and is suffering internal pains and cramps from the vascular engorgement, no doubt alcohol has temporary helpful relations to the case, bringing the blood away to the surface. So has it useful relations to syncope, to shock, and to other cases of deficient brain circulation, where its irritation to the stomach, and not its absorption, may serve. Hence, what is used for

the purpose should be strong. There are many other things as good, if not better. Thus the horizontal position, splashing the face and neck with cold water, cold or hot drinks, aromatic teas, camphor, ammonia, are appropriate, and are the people's remedies; while physicians may add amyl-nitrate, nitro-glycerine, and other things too numerous to mention. For years, nitro-glycerine has been the chief remedy of the writer. It is good to administer in anticipation of faintness from operations. So iron, and not alcohol, for anæmia and anæmia neuralgia; bismuth for gastralgia and pyrosis; not whisky, but the bromides, capsicum, digitalis, feeding, nutritious enemata, for delirium tremens; heat to the chest, camphor, ammonia, strophanthus, digitalis for the flagging heart; not alcohol, but digitalis, strychnia for dropsy; camphor, chloroform, turpentine, not liquor, for malarial chills; not liquor, but turpentine, ergot, salt, milk, for hæmorrhages; not alcohol in congestive dysmenorrhœa, inflammatory colic, dysentery, and a thousand other conditions in which stimulation is required. [In all cases of nervous exhaustion, or where the stomach is at fault, Dr. Archibald Billing says "restoration will not be expedited by stimulants," meaning alcoholics. Being, then, rather a hindrance than a help, good sense is on the side of the surgeons of certain corporations where accidents are common, in recommending that the employés be prohibited from resorting to liquor in cases of injury.]

#### ALCOHOL AS AN ANÆSTHETIC.

It would be well if this term, as applied to alcohol, were excluded from medicine. That alcohol by the skin, stomach, lungs, obtunds the nerves, paralyses the muscles, stupefies the brain, needs no confirmation here. As persons see these effects, they name it according to their conceptions—intoxicant, narcotic, paralyrant, &c. I use the word anæsthetic, for, like Aaron's rod, it swallows up all the rest.

Anæsthesia is the most conspicuous of its effects. It is this which balms

the feelings and brings the cheer; that smothers the aches and the pains; that exhilarates the mind, beguiles to repetition, to increasing doses, to habit, to inebriety, upsetting the mind, and raising the devil.

Alcohol is thus the very mad dog of *materia medica*. Nevertheless, it was the best anæsthetic known to our fathers. They also wore wooden shoes, things we need not wear. Ether, gas, chloroform, and many other agents, have come to the fore, pushing it to the rear. They are not so deceptive, so seductive, so habit-producing, and those who handle them are not so likely to catch the Tartar—inebriety.

Having so numerous and efficient agents as substitutes, agents which have not its peculiar back-cut upon the blood cells, I need not waste time in pointing out when and where it can be used in this direction; for it was the new cane the old man used while all the former ones were put in a brace in the wood shed. Neither need I stop to indicate the purpose its varied properties fit it to serve as an external remedy. I therefore pass at once to my last point.

#### ALCOHOL AS A PERTURBATOR OF THE ORGANISM.

The effects of alcohol on structure, and so, on functions, marks it as the most remarkable disturber of the animal body with which we are acquainted. Whatever else it may do, here it takes pre-eminence. Its ethereal influence, to be sure, are the lulling wings of the vampire; in this is its mouth applied to the vital fluids. Its anæsthesia is the dummy hand of the thief; here are the concealed fingers which filch the purse. The mental exhilaration it produces is the smiling face of Brutus; this, his bloody hand which plunges the poniard.

With all that is known of the morbid changes produced by alcohol, how little is systematically considered and applied in practice? Last year I called attention to its power over the blood corpuscles, and showed a photograph of the extreme changes it produces in

their physical character, in a portion of blood taken directly from a drunken man. This was right to the point. It gave ground for explanations and deductions otherwise impossible. Knowing the physiology of these corpuscles, as the gas carriers of the body, we do not require to be beaten with a club to comprehend that such alteration in their character must amazingly effect their important functions. But this is not all. The alcohol which gets into the interior of the corpuscles acts the part of the dog in the crib, and refuses the oxygen and the carbonic acid. Thus in a double sense their functions are depressed. In the paper referred to, I explained how it was that alcohol so affected their physical character, by showing that the spirit, having a great attraction for water and little or none for the substance of animal membrane as such, by the laws governing osmotic action compels the water to come out of the cells and mingle with it on the outside. Not only does it thus collapse the cells, but it also similarly affects all other moist structure throughout the body. Who has not seen this in mucus, in albumen, in the protoplasm of rapidly-healing wounds?

What it does under the eyes on the outside of the body, it does on the inside, and the more so in proportion as they are watery and the cell walls delicate. In this way are the tendons, the muscles, the nerves, the connective tissue and the organs affected. Is there, therefore, difficulty in comprehending why the bodies of drinking young men grow old apace? An agent that will sterilise the cells of a pup and prevent their evolution, thus holding his body throughout in the condition of a Chinese woman's foot, must and does pervert the structures of those who drink it. Here, then, we have the key to the alcoholic pathology—the changes so conspicuous in the bodies of old toppers, and so surprisingly numerous in the bodies of moderate drinkers suddenly cut off by other causes. This shows why we cannot cure persons made sick by alcohol while the habit is continued; why surgical cases act badly in alcoholised patients; why the healing of



wounds is not expedited but hindered when the liquor is given: why the white blood cells are crippled and protoplasmic movements arrested by this agent.

Here is the key that unlocks the mystery of fatty degeneration, fatty bloating. Is it strange that such organs as the kidneys, the liver, the stomach, the brain and spinal cord, the vascular system, should undergo fibroid and cirrhotic changes by so active an agent, and acting in the way that alcohol does?

Here is the explanation why the bodily temperature can never be raised by alcohol, but always lowered; and why this antipyretic action cannot be rendered serviceable in practice. Here is its philosophy in weakening brawn and brain. Every other function must be depressed when the blood-cells are strangled.

Now, I ask, what reason have we to expect good from it in the treatment of any or all diseases of the respiratory system? They obstruct oxygenation and the elimination of carbonic acid. Does not alcohol do the same? They weaken; this, more. If pneumonia blocks pulmonary circulation and aëration, and by heaping excessive labour on the heart, tends to overwork it and exhaust it, determining heart failure; this, more. Strange that we should lose our heads as philosophers in the face of alcohol. Would that we return to the lancet for this grave disease, relieving the volume of blood upon which the embarrassed heart has to act, and be done with this most irrational and fatal treatment of it, ever employed. If the structural changes in the lungs of consumptives hinders oxidation and weakens the body, does not liquor do the same, albeit it diminishes the cough by times? Is our philosophy correct when we give alcohol in distegration with defective depuration, as in fevers and the like? Does it not itself increase depuration by hindering the absorption of oxygen and the expulsion of the waste, represented by carbonic acid and urea?

Certainly if it can obstruct the waste in a well man till he stinks from head

to foot, it can never purify the blood of one already foul.

These questions, with scores more that might be asked, being based on solid grounds, leave me little room to answer, Where? When? Give alcohol? There is nothing in physiology more certainly scientifically demonstrable than that alcohol changes the structure of the blood-cells, and, through these, the functions dependent upon them, and as their functions are vital and no hindrances to them can conduce to the restoration of the sick, the reasons for alcoholic medication are driven to the polar region of barrenness. They cut the tap-root of the popular liquor therapeutics, and no human invention can make it again bear green leaves. Alcohol, when in any degree of concentration, is opposed to ptyaline, to pepsine, to pancreatine. It is contraindicated in bilious cases, cirrhosis of the liver, gout, Bright's disease and diabetes; the last of which it can directly produce.

But this paper is not written in ignorance of the fact that many good physicians use it. Were it not that many do, the statements herein would not be worth the making. I may be wrong; we all err. In a neighbouring city an astute physician stood up in a medical meeting and deposed in favour of a certain pill, relating numerous cases where he had given it with good results. Another physician followed, showing the same pills which had been gathered from the former's patients, they passing whole, only losing their sugar coats. A prominent member of this Association had a fever case which got into the typhoid state; his kidneys being obstructed, I counselled efforts to open up the kidneys and skin and so relieve the nervous condition. The doctor was obstinate, believing in "bridging the chasm" with "the bridge that brandy makes," and gave it. His bridge was rotten. I now have a patient under my care who told me he had taken quite a half a barrel of different liquors on the prescriptions of this same physician and began to improve the moment he left the liquors off. A clergyman called on



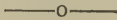
me, relating that his child had been sick with the typhoid and got to that condition where the doctor said nothing but brandy would save him, and accordingly brought a bottle of it to the house. The clergyman took it, threw it into the back yard, made a liberal portion of beef tea and gave it. Soon the sweat started, and the child fell into a sweet sleep and was better the next morning. The doctor spoke of the change and attributed it to the wonderful power of the spirit. I warned that clergyman for not undeceiving his doctor, and allowing him to go away strengthened by the success of the brandy in this case, to give it with increased confidence.

It may have been good in cases of fever, diphtheria, &c., where large doses have been given and which appeared to be beneficial. If so, I am very positive that it was owing to its power over the peculiar microbes in these diseases, sterilizing and rendering them inert; for we know that alcohol, at fifteen or twenty per cent. strength, overcomes and practically destroys most of the germs about us, even the blood-cells themselves, as I have witnessed, producing death. And it is a most wonderful provision of nature against fatality from the drink habit, that the medulla oblongata is so much more resisting to the power of

alcohol than the rest of the body, continuing its functions when all else is practically dead, keeping the heart beating and the lungs moving, fanning out the poison from the prostrated blood-cells. Were it not so, how often would the undertaker's service be required to what it now is!

I know I cannot answer all your questions, yet I trust I have said enough to show you that this subject is not all a mystery, but full of interest and instruction, if we but come out of the clouds and study it from ground principles. I came up the historic Potomac, and, though the oar, the sail, the smoking steamer, seemed to indicate that the current was devious, I am sure its steady flow is to the ocean beyond. Though I note some driftwood held in sluggish side-currents, some cross currents, whirlpools and waves, I am as satisfied that the stream of alcohol, whether taken foolishly, from habit, or on the advice of physicians, in large or in small doses, has but one general course, one end—the fathomless deep.

Comparing the results of my practice with the practice of those who use it, until something more scientific in its favour comes up, some new revelation is made, the day is far distant when I shall send another Brutus after my Cæsars.



## IS DRUNKENNESS CURABLE?

(From the *North American Review*.)

It may be stated, with perfect confidence in the absolute correctness of the assertion, that there is no medicine or combination of medicines that will cure a person of the habit of drunkenness—that is, that will destroy his or her habit or appetite for alcoholic liquors. It may be incidentally stated with equal positiveness that there is no habit, whether of chloral, opium, hashish, or any other intoxicating substance, that can be cured by medicine; and, even further, that there is no habit or appetite whatever to which

mankind is subject that can be got rid of by drugs, whether it be drinking coffee, or smoking tobacco, or taking a walk every day at a particular hour, or going to bed at a certain time. Appetites and habits are not under the control of medicines; nevertheless, there can be no doubt that the habit of drunkenness is curable, and that the appetite for alcohol can be abolished.

In order to demonstrate these facts it will be necessary to state, first, what the desire for alcoholic liquors

is, and, secondly, how it may be cured.

Most persons get drunk because they want to; others because they cannot help it with the means of combating their inclination which are at their disposal.

Now in regard to the first class—those who get drunk because they want to—there are several motives which prompt them to excessive indulgence in alcohol. By lessening the nervous impressibility of the individual it diminishes any painful impression, mental or physical, of which he may be the subject; it drowns his sorrow, and eases his pains. Besides these effects, by stimulating certain portions of his brain it, in many cases, at first arouses pleasurable emotions before the stage of stupor or utter forgetfulness is reached; though every one knows that in many cases it produces a state of frenzy or prompts to acts of violence. These people get drunk every day, for the habit becomes established in them, and habits when well fixed in the system are very difficult to eradicate. Still, they may be cured, and it is well if they can be cured before not only the habit has become confirmed, but before an appetite has been aroused which is quite as difficult to subdue.

A person, for instance, is induced to smoke a cigar after dinner. The inducement, whatever it may be, constitutes the impression made upon the brain. The persuasion of a friend, the desire to be sociable, or the idea that smoking would be beneficial to the health, prompts to the performance of the act, and the cigar is smoked. It is repeated for similar reasons, until at last the act of repetition begins to exercise its effect, and the original incentive is lost sight of in the more powerful one which has taken its place. A habit has been fully formed; an appetite has been created; and neither can be broken without violence to both mind and body. The oft-repeated impression has left its traces somewhere each time, until at last it assumes a local habitation and becomes permanently fixed in the organism, not to be lost except through

some more powerful influence acting in a manner similar to the first.

What is true of tobacco is even more true of alcohol, for the effects resulting from this agent are more powerful than those that ensue from the use of tobacco, and hence its influence in causing a habit or arousing an appetite is more difficult of eradication.

Next, in regard to those who drink because they cannot, with their then existing means of control, prevent the indulgence—an indulgence which they know is injurious to them, and from which they honestly endeavour to abstain. A great many of these people have the proclivity to the excessive use of alcohol born in them, and, aware of this fact, they sometimes imagine that it is useless for them to try to overcome the fatal inclination. This inclination may come upon them spontaneously, without their being any love for alcohol, either for its taste or for its effects, and act with a force which it appears to them they are powerless to resist. Even in regard to substances which produce no very marked effects upon the system, a habit may be aroused through this influence of hereditary tendency.

Thus, a gentleman informed me that his grandfather had become accustomed to wake up from sound sleep at twelve o'clock every night and drink a cup of tea, after which he would lie down and sleep quietly till morning. The father of my informant was a posthumous son, and his mother died in childbirth with him. He was English, and at an early age went to India with an uncle. One night, when he was about twenty years of age, he awoke suddenly with an intense desire for a cup of tea. He endeavoured to overcome the longing, but finally, being unable to sleep, got up, and proceeding to an adjoining room, made himself a cup of tea, and then going back to bed, soon fell asleep. He did not mention the circumstance at that time; in fact, it made no strong impression on his mind; but the next night the awaking, the desire, and the tea-making were repeated. At breakfast the

following morning he alluded to the fact that he had twice been obliged to rise in the middle of the night and make himself a cup of tea, and laughingly suggested that perhaps it would be as well for him in future to have the materials in his bedroom. His uncle listened attentively, and, when the recital was finished, said :—

“Yes, you have everything ready, for you will want your tea every night; your father took it at midnight for over twenty years, and you are like him in everything.”

The uncle was right; the midnight tea-drinking became a settled habit. Several years afterward the gentleman returned to England and there married. Of this marriage a son—my informant—was born, and six years subsequently the father died. The boy was sent to school till he was sixteen years old, when he was sent to Amsterdam as a clerk in the counting-house of his mother's brother, a banker of that city. He was kept pretty actively at work, and one night in particular did not get to bed till after twelve o'clock. Just as he was about to lie down the idea struck him that a cup of tea would be a good thing. All the servants had retired; so the only thing to do was to make it himself. He did so, and then went to bed. The next night he again had his tea, and after that took it regularly, waking from sleep punctually for that purpose at twelve o'clock. Up to that time he had never been a tea-drinker, though he had occasionally tasted tea. Writing home to his mother, he informed her that he had taken to the custom of drinking tea, but had acquired the habit of taking it at a very inconvenient hour—twelve o'clock at night. She replied, telling him that he had come honestly by his liking, for his father and grandfather had had exactly the same habit. Previous to the reception of this letter he had never heard of the peculiarity of his father and grandfather.

Any sensible person, whether physician or layman, will see at once that such a habit as this is not within the range of cure by medicine. And if the comparatively innocent habit of

drinking tea at inconvenient hours is not, why the still more imperious habit of drinking alcohol? But, though not curable by medical means, the alcoholic habit is curable, and there are three ways by which it can be overcome.

*First*, by absolutely stopping the manufacture, importation, and sale of alcoholic liquors.

*Second*, by putting the person in whom it is desired to stop the habit under such restraint or into such utter seclusion that he cannot by any possibility get liquors.

*Third*, by instructing him fully in regard to the injurious effects of alcohol upon his system, and, by superior mental influence, so strengthening his will-power as to enable him to resist temptation.

In regard to the first means mentioned, it is probably altogether impossible of accomplishment, even if it is desirable that the presence of alcohol upon the earth should be abolished in order that a comparatively few persons, not by any means the most valuable citizens, should be cured of drunkenness. It is well-known that such prohibitory laws as legislatures enact do not essentially interfere with the use of alcohol by the more worthless portion of the community, who will get it at all hazards, while they materially lessen the comfort of those persons who take their glass of wine or mug of beer in all sobriety, and who are benefited by this decent use of stimulants. Nevertheless, it is quite certain that the sale of alcoholic liquors should be regulated by the state, and that much may be done to prevent drunkenness by such wise interference; by requiring a high-license fee and such strict police supervision as will not only insure the purity of liquors, but will prevent their sale by improper persons. The total abolition of alcohol from the earth would, as I have said, be invariably curative of the habit of drunkenness, but it is a therapeutical means so utterly beyond the reach of any earthly potentate or power that we may dismiss it from further consideration.

Secondly, in regard to the seques-



tration of the drunkard. This is entirely within our means of accomplishment, and must form, in the majority of cases, the chief means for the treatment of the habitual drunkard, or the one who drinks spasmodically. The gentlemen who were in the habit of getting up in the night to take tea could have been cured of this habit by such physical restraint, continued for a sufficiently long period to break the force of the power of iteration. We are all conscious of the fact that some one or more of our habits have been broken up when they have become physically impossible of repetition. And this is true not only of habits, but of appetites as well. The longer we abstain from any particular habit, the less powerful becomes the inclination to indulge, and after a period varying according to circumstances, or the organism of the individual, the excitation is no longer experienced.

It must be understood that, after persons have been in the habit for a long period of over-indulgence in the use of alcoholic liquors, the system becomes habituated to their use; and when they are stopped many disagreeable and even painful sensations are experienced. Little by little, however, if abstinence is continued, these become less strongly felt, and they eventually disappear.

There are many ways in which this physical prohibition can be effected. The person against whom it is directed may, in mild cases, be allowed to go at large accompanied by a faithful attendant, or he may, if a high-minded and honourable man, even be trusted to his honour after he has made a promise not to drink. Cases of this kind are not often met with; still they do occur. Or the victim may be subjected to actual imprisonment, either in an inebriate asylum, a hospital, or a jail; than into either of the other places; or the restraint may be accomplished by drugs, such as opium or other narcotics which so stupefy the patient that he is never conscious enough to exercise a habit or gratify an appetite. Of course this is no more curative than would be the production of the same effect by a severe blow on the head,

and is, altogether, a method of treatment which, in my opinion, is perfectly unjustifiable. Such treatment cannot be continued sufficiently long to prove of any benefit. In fact, it is never successful, and there is always the risk of making one habit take the place of another.

Still, even after physical restraint has been faithfully persevered in for long periods, many of those who have been subjected to it resume the habit of getting drunk soon after they are set at liberty. They do this simply because they want to. Drunkenness is a mode of enjoyment for them. They either do not believe it to be injurious or, if so believing, they drink and knowingly take the consequences.

Not long ago a patient said to me: "Doctor, you may lock me up and surround me by guards when I go out, and you may advise me as much as you please, and you may continue this system of treatment for ten years or more, and when you stop it, and I pass from under your charge, I will get drunk. I shall do so because I like to get drunk. I am a free citizen of this country, and I have a right to get drunk if I wish to do so."

In this connection it may be stated that many persons continue to drink to excess because they believe they have a moral right to do so if they choose: and they feel that it is an outrage upon their personal liberty to subject them to restraint.

As to moral suasion, the third of our means of cure, it is mainly successful with those unfortunate but intelligent persons who strongly desire to be cured. It is with these that the advice of a physician in whom they have confidence, the encouragement that he is able to give them, and his charity towards their failings which his knowledge of human nature gives him, prove most successful. These are the patients to whose honour we can trust with the most confidence, and these are the ones who are most generally cured.

Now, I am not to be understood as saying that medical treatment is to be altogether neglected. Certain tonics



and sedatives are required in the course of treatment, to overcome conditions that may be produced in the system of the habitual drunkard when his customary stimulus has been taken away; but as to the specific influence of the nitrate of strychnia, which has had its day, and the double chloride of gold and sodium, which is now being palmed off on the public as a certain cure for drunkenness, I have only to say that their use in such a connection is most irrational, unscientific, and delusive. Almost every drunkard can abstain for a time, more or less long, by the mere effort of a very weak will, and actuated by a desire to think that he has got something to cure him. But I venture to say that there is not one single case of a cure by either of these agents, or any other agent, by the unaided power of the drug. Strychnia or gold or almost anything else will, when used in the case of sensible persons who sincerely desire to be cured, and who are imbued with confidence in the physician, prove efficacious. I have cured patients with a daily hy-

podermic injection of a few drops of water, combined with the influence or mental predominance which I happened to have over them. But that there is any antidotal power in the chloride of gold, or any other drug, is the purest kind of fiction. I have used the chloride of gold hypodermically in my practice for many years, and I have never witnessed a single case in which it abolished the taste for alcoholic liquor. Neither do I believe that there is any such case in existence.

This is all I have to say on the subject, although there is one means of cure not yet sufficiently tried, but of which the therapeutical promise appears to be good: and that is hypnotism. There are cases on record in which it is said to have been effectual, but I have none such within my own experience. I have, however, cured two cases of the opium habit by employing it. Its range of usefulness is, unfortunately, not large, for comparatively few persons are subject to its influence.

WILLIAM A. HAMMOND, M.D.

## IS DRUNKENNESS CURABLE?—A SYMPOSIUM.

### DR. ALFRED CARPENTER'S REPLY.

THIS question, which has been often asked, and variously answered, like many other physiological and pathological queries, is not yet settled. The reason why it remains open is not difficult to see, since it relates to such a variable quantity as man.

Workmen skilled in the business can judge accurately whether an antiquated dwelling, a dismantled bridge, or a crippled ship, may be rendered suitable and safe for occupation, as an experienced gardener may predict with reasonable safety whether a diseased plant will mature to advantage; but questions involving the more complex organism, man, are not determined with the same degree of certitude.

Further than that, when influences affecting man are estimated, which of

themselves do not tend to lessen the power of self-control, some degree of accuracy may be expected; but when, as in this case, the agent considered acts constantly to the destruction of self-control, who can say, since no two men are precisely alike, whether drunkenness in the abstract is curable or not.

The most we may expect, therefore, is a determination of the probabilities involved from a consideration of the physical conditions incident to this repulsive habit, and from observing actual cases of inebriety.

Some men are born drunkards, some achieve drunkenness, and some have drunkenness thrust upon them. Then again, the question varies with the conditions of youth, manhood, and old age; while physical and mental

strength, occupation, and general habits of life need to be considered.

It seems hardly necessary to mention the obvious fact that drunkenness is but the perversion of a necessary function. The human body, like every other active machine, requires force to perform its various labours, of which food in the liquid form is an important source. From 83 to 85 per cent. of our customary diet is water, the importance of which may be noticed in the fact that water constitutes some 75 per cent. of the blood, and nearly three-fifths by weight of the whole body. The evaporation of the fluid portions of blood in all parts of the system is doubtless an important factor in the process of nutrition.

When a deficiency of fluid occurs in any part, those signal-stations, the nerves, give notice, and a sensation of thirst arises. If the tissues from which this sensation primarily comes lack any necessary element due to their proper nourishment, this sensation varies accordingly, provided that the nerves conveying the signals are sufficiently accurate in the performance of their work. If the living liquids conveying nourishment contain any special ingredient or property affecting the nerves themselves in a peculiar, unusual, or abnormal way, some correspondingly peculiar sensation is incorporated with the sense of thirst.

In this way morbid cravings are created as the result of the continued use of stimulants and narcotics. No one is thoroughly and truly a drunkard, probably, until these diseased cravings have been established. The tendency to drink spirituous liquors may exist for a considerable period as a perverted natural function without the formation of these abnormal impulses. I once knew a young man who had naturally a dislike to the taste of most strong liquors, and yet who got drunk occasionally because he thought it a dashing and manly thing to do. In spite of difficulties he worked up to his highest ideal, and was successful in attaining it. He became noted as a mixer of fancy drinks, and later on as a professional guzzler. For a con-

siderable period, in this case, it may be noted that drunkenness was not due to any internal abnormal craving, but to the external force of fashion and this young person's exalted idea of manliness.

Another case is that of a young man of a wealthy family with several drunkards in the ancestral line, and yet who drank no beverage stronger than wine, and that sparingly, until after twenty-five years of age. He had a natural liking for alcoholic liquors, of which he was thoroughly aware, and yet from the force of his own will never drank to excess till after the age of twenty-five. For a considerable period thereafter he was not in any proper sense a drunkard, and the desire he possessed to drink was that due to nature, probably, and not to disease.

This case illustrates another important point—that it is not the desire or craving alone that makes the drunkard, but, in addition to that, loss of self-control—weakening of the will. In this particular case, the young man's will, which had been previously strong to resist the natural tendency, was weakened by business reverses which stripped him of his property. He then drifted into the common channel of sottish debauchery. Abnormal craving and weakened power of control do not always go together therefore, though they usually do. Individuals are not rare who possess special likings, which become at times, through one influence or another, morbid cravings for stimulants, and who yet remain steady, sober citizens, for the greater part of their lives through sheer force of will. An eminent example of this class is the late John B. Gough.

The will of an individual may be weakened and drunkenness induced by influences which have no relation to morbid cravings. Any sort of sickness that sufficiently lowers the "nerve," as fever, hæmorrhage, or tape-worm; any loss, as the loss of property, loss of friends, or disappointed affection—any of these may serve to break down the will, and sottishness results. Morbid craving, however, while it may arise as a con-

sequence of many and various remote causes, is always due, there is good reason to believe, to one of two immediate physical causes—deficient nutrition or perverted nutrition. Alcohol has the same property of retarding the waste of tissue in the human body as it has for preserving snakes, toads, curious growths, and other specimens in the glass jars of the museum. It is true that eminent medical authorities have cited this fact—that alcohol retards the waste of tissue—in support of its moderate use as a food; but as it may be seriously doubted whether the health is best promoted by retarding the waste of tissue, this property of alcohol suggests quite a different conclusion.

A physical reason why savages take so naturally to rum is that they are usually suffering from hunger; if not as regards the quantity, certainly as regards the quality, of their food. It is no doubt true, as Maudsley has said, that “a freedom of mental power, an exaltation of the whole nature, mental and bodily,” is opened up to the savage by the use of intoxicants, just as the same freedom of mental power induces the civilised man when drunk to believe that he owns the earth. But there is the additional reason in the case of the savage that the rum retards the waste of his poorly-nourished tissues.

Dr. Robert Bird, a surgeon, formerly of the East Indian Army, has published four cases, which are certainly most convincing as to the point mentioned, that deficient nutrition is an immediate cause of morbid craving, and that when the defects of nutrition are remedied this unnatural craving ceases. These cases, cited by Dr. M. D. Field in an address before the alumni of Bellevue Hospital, are as follows:—

“*Case I.*—I. H., an infant, while suffering from malarious diarrhœa, showed an abiding desire for gin and brandy. When she could get it, she would drink as much as ten or even twelve ounces a day. This amount made her happy, but never very drunk. It was her chief sustenance for some months, and under its influence the

diarrhœa got well. The craving for drink disappeared with the disease. When I last heard of her, she was the sober mother of a family, living with her husband in a village near Newcastle, England.

“*Case II.*—H. R., a scrofulous boy of two years, while suffering from chronic dysentery, developed an insane appetite for brandy. When this was first offered to him, he drank it greedily and screamed for more; and for weeks brandy was his cry, his joy, and his support. Ultimately he got rid of his dysentery and drink craving together.

“*Case III.*—E. B. was the wife of a river-steamboat captain. Her husband told me ‘she drank like a fish,’ and had been drinking so for years. She drank anything she could get; and when ordinary drink was not forthcoming, she would drink eau de Cologne, surreptitiously purchased from Hindoo peddlars. As she also suffered from rheumatism of the womb and copious leucorrhœa, I had her removed to hospital for treatment. Cure of the womb-affection in a great degree cured the drink-craving also, but not quite. Oxide of zinc, as recommended by Marcel, of London, and wild thyme, as recommended by Salvatori, combined with seclusion in an institution where she acted as sewing-mistress, were required to complete the cure of this. She ultimately returned to her husband, reformed and thoroughly restored; nor did she in the subsequent years relapse, so far as I know.

“*Case IV.*—M. W., when I first came to know her, was the mother of eight children. In her last confinement she lost a great deal of blood, and subsequently developed a mad wish for liquor, to the great grief of her husband, a steady mechanic. It turned out, on inquiry, that she had for years previously been in the habit of starving both herself and her children for purposes of economy. Iron, good food, and change to a more temperate climate, in this case cured the anæmia and drink-craving too.”

These cases also indicate, to some extent, doubtless, the influence of perverted, as well as deficient, nutrition.



It has been frequently noticed that workmen are especially addicted to drunkenness who are accustomed to pursuing their vocations in badly-ventilated rooms. Gross feeding, with lack of exercise, may similarly pervert the food-supply and produce morbid craving. People accustomed to live on a single article of diet, or a class of food deficient in some essential element, would seem to be especially susceptible to the dangers of morbid cravings. They receive the quantity of food without the nourishment, and the effect is much the same as the loss of nervous power by the well-fed. Says Dr. George M. Beard : " When the nervous system loses, through any cause, much of its nervous force, so that it cannot stand upright with ease and comfort, it leans on the nearest and most convenient artificial support that is capable of temporarily propping up the enfeebled frame. Anything that gives ease, sedation, oblivion—as chloral, chloroform, opium, or alcohol—may be resorted to, at first as an incident, and finally as a habit. Such is the philosophy of opium and alcohol inebriety.

Referring the immediate causes of morbid craving for alcoholic stimulant to defective or perverted nutrition, we may enumerate the more general influences inducing these conditions, as :

1. Congenital or hereditary ; where he parents have eaten the sour grapes of debauchery, and the children's teeth are set on edge with the taint of a depraved appetite.

2. Excessive mental strain due to overwork, anxiety, or similar cause, inducing not only loss of self-control, as already referred to ; but, through the strain on the nerves, morbid cravings for stimulants or sedatives.

3. Diseases or injuries to the bodily organs which directly or indirectly affect the brain and nerves.

4. In the case of the weaker sex certain peculiar conditions, as shown in menstruation, parturition, and especially the climacteric, not only tend to paralyse the will, but induce at times intense morbid craving for stimulants.

5. Negative social conditions, such

as the lack of friends or family ties, inducing lowness of spirits and a perversion of the fluids and functions of the body.

6. Changes in the brain sometimes due to age.

As all these influences lead to one of the two physical conditions, deficient or perverted nutrition, remedies must evidently have reference both to these ultimate influences and to correcting the bodily conditions.

Perverted nutrition due to alcohol itself is not easily remedied ; the yearning demands of the poison being difficult to destroy by medicines. Various antidotes have, however, been suggested, and some are thought highly of in this connection. Nearly five centuries ago the old alchemist Roger Bacon asserted that he had discovered in *aurum potable*, or tincture of gold, the veritable elixir of life, to drink of which would restore age and decrepitude to youth and beauty. The properties of this wonderful tincture, however, have dissolved away and disappeared, till now the only medical value claimed for any combination of gold is that of the chloride, which is regarded as a specific for the effects of drunkenness, one physician claiming to have made permanent cures of 95 per cent. of his cases. It is difficult to see how he can claim permanency of cure for so large a percentage unless the patients are all dead. The writer's experience in many cases where he has administered the chloride of gold has not convinced him of its efficacy. Other drugs, extract of gentian, the sulphate and also nitrate of strychnia, bromopotash, bromidia, &c., have been urged similarly as specifics for drunkenness.

As it is doubtful whether the physical action of any drug taken for a brief period will influence the individual to a temperate, sober course of life for a series of years thereafter, unless the state of his mind and other conditions are all favourable, we must still regard the inquiry as an open question—Is drunkenness curable ?

From the reports of an institution for inebriates we note, in connection with some five thousand cases of drunkenness, certain points relating



to the general circumstances and conditions of life.

In regard to nationality, while it is true that Europeans are heavier drinkers than Americans, the American is more susceptible to the evil effects of alcohol, and as a rule succumbs sooner to inebriety than the European. We are not to infer from this, of course, that the American drunkard, in order to be cured, needs to change his nationality; though it does indicate the need of considering the susceptible tendency to exaltation of the American temperament and the necessity for a non-stimulating diet and non-exciting treatment for quite a long period in any attempt to cure the average American dipsomaniac of his disease.

As to climate, elevated regions are better suited to the would-be temperate than low levels or sea coasts.

In regard to marriage, in the institution referred to "there were some 2,100 married, and 1,750 single male inebriates, and 400 married female inebriates, and only about 50 single female inebriates:" from which it is fair to infer that uncongenial marriages lead to inebriety in a greater ratio than solitary singleness. Unmarried males were however, more frequently subjects for readmission than the married; while the reverse was true in regard to females.

As to indoor occupations, the greatest number of drunkards were those engaged directly in the liquor business, and next to those painters, and printers next. Of outdoor occupations drivers and teamsters were the greatest in number. The professions ranked, in the order of greatest number of inebriates, as follows:—physicians, lawyers, engineers, druggists, journalists, artists, students, reporters, clergymen, actors.

In regard to occupations, the more arduous the calling, and the greater its demands upon the physical, as well as mental powers, the greater the tendency to inebriety, from which it is fair to conclude that a necessary condition in any system aiming at a permanent cure is rest for a sufficient

period to enable the physical factors of life to readjust themselves on a normal basis. Where any self-regulating apparatus like the human body suffers derangement, occupying considerable time in the process, it would seem but reasonable to suppose that an equally long period at least would be necessary to effect a normal readjustment. According to unquestioned testimony, not only does the drinking-habit derange and poison the tissues, induce morbid craving, and weaken the power of self-control, but it destroys the moral responsibility of its unfortunate victim. He becomes not merely diseased, but insane, and in accord with his temperament exhibits the vagaries, hallucinations, or silly eccentricities of the lunatic.

To attempt to cure the confirmed inebriate by appealing merely to his moral sense as against the morbid craving of a diseased stomach and brain would seem futile. The poor drunkard may appreciate the argument, acknowledge its truthfulness, and yet have no will to enforce it. The best he can do is to place himself in a situation where his physical powers may be restored and where he will be free meanwhile from the social influences inducing him to drink.

I once knew a brilliant young man who had become a drunkard. In one of his sober periods, which were not frequent, he fell in love with a young woman who, for a time at least, reciprocated his affection. He proposed to her, and, acting under the advice of friends, she consented to marry him provided he would lead a perfectly sober life for two years. He agreed to this, and engaged himself to work in an institution where abstinence from all intoxicants was the law. This plan was successful, and he now is a successful business man in a neighbouring city, and is not a drunkard. The most we may expect of the confirmed inebriate in his lucid moments is that he may have sense and will enough remaining to put himself into a condition favourable to his recovery.—"*Health*," October 23rd, 1891.

# QUESTIO VEXATA.

(From the *Popular Medical Monthly*.)

SUCH is the alcoholic question. It affects all ranks, all ages, and almost all countries. Its importance is out of all proportion to any dietetic or therapeutic value that the most ardent advocates of alcohol claim for it. It is a subject that deserves our most serious consideration. It is a subject that has made considerable progress during the last twenty-five years, both in the profession and out of it. In spite of that, there is much ignorance prevailing, and many believe that there is some mysterious potency belonging to alcoholic beverages. It is to be regretted that many medical men foster this belief, and that temperance reformers, in their knowledge of the subject of alcohol, are in advance of the doctors, and are leading them. There are various reasons for this, personal and other. That, on the whole, medical opinion is against the free use of alcohol, or its use at all, except in special cases and in defined quantities, there can be no doubt. Nevertheless, there is a large residuum in the rear medical camp who have given very little attention to the study of the question since their student days, and who go on prescribing alcoholic drinks in health and in disease without a thought, and, if pressed for the reason why they prescribe alcohol, would be at a loss to give one. This, we think, is reprehensible, and does much to weaken the faith of the public in other prescriptions, which are founded on science and experience, and are the result of honest study. Every careless prescription does a double wrong—it does a wrong to the patient, and a wrong to the doctor. On that ground alone we urge all medical men to be sure of the need of stimulants before ordering them, either in feeble health or in disease. If the physician has brought up his knowledge of this, as he has of other questions affecting his profession, and can give a scientific reason, and with a full knowledge of all the possibilities, near and remote,

which may flow from his advice, then he is blameless. But otherwise he incurs a serious responsibility. This, unlike almost all other prescriptions, is one that is apt to be prolonged long after all necessity for it has passed away. This is an element in the prognosis that should not be lost sight of. If, for example, we knew when we prescribed a bath for our patients there was a likelihood of their becoming so fond of the water that thousands of them would not cease till they had crippled themselves with rheumatic fever, or lost their lives through drowning, we would hesitate before we prescribed a bath, and if a substitute could be found we would in most cases adopt it. It is because of this "want of thought" that temperance and social reformers utter such hard things against the doctors. This is not the only side of the question, but as it is one that bulks largely in the minds of many, it should never be lost sight of by the profession, whose office is to save health and life.

What is the teaching of science on the alcoholic question? Is alcohol a food; if so, where is its place? Is it a medicine: if so, wherein lies its power?

The body is not very tolerant of alcohol. Experience has placed it beyond dispute that, whenever it is taken in large quantities, the greater part of it is passed out of the body unchanged. A small portion, however, is lost—and perhaps the greater part of a physiological dose—what becomes of it is uncertain. Most physiologists say it is oxidised, but of this proof is wanting. This disputed point is the battle-ground on which the advocates of alcohol and the advocates of temperance contend. If it is oxidised, then, to that extent it is a food, and takes its place among the farinaceous or heat-producing stuffs. It is to be regretted that physiologists cannot settle the point, not that it could be of great importance from

a dietetic standpoint, for "man has recourse to alcohol, not for the minute quantity of energy which is supplied by itself, but for its powerful influence on the distribution of the energy furnished by other things." Liebig used to say that he could put on the point of a snuff-spoon all the nourishment contained in the beer that the most capacious German could drink in twenty-four hours.

But, it is said, although alcohol as an article of diet stands very low, yet it is a great retarder of wear and tear—that a moderate or small dose diminishes the consumption of oxygen and the production of carbonic acid—that is to say, diminishes the total result of the metabolism (tissue change) of the body, while larger, but still not intoxicating, doses have a contrary effect, and increases the total metabolism.

The latest experiments on the power of alcohol to affect the output of nitrogen from the body have been made by Munk upon dogs. These experiments were very carefully performed. The following are his conclusions:—

The dogs were carefully prepared for the experiment, and were under observation for some time, so that as far as their health was concerned they were in a state of equilibrium. Alcohol was then given to certain of them for a period of from eight to ten days. The quantity of alcohol was large, rising to 2·5 c.c. per dose. Therefore, such a quantity, given day after day, should have produced a decided result, if alcohol is endowed with any special power to retard or stimulate tissue change. He writes: "Our results lead us to the conclusion that alcohol has no very striking specific action upon the general change of nitrogenous matter." He goes on to remark that it yields a certain amount of energy by its own oxidation, and so tends to protect slightly the consumption of nitrogenous material, and so conserve the tissues. "Assuming this view to be correct, one could not expect any very great diminution in the nitrogen output under the influence of alcohol. At the same time, it must be remembered that alcohol is a potent drug, and, as

such, may exert at times some specific action upon wear and tear.

"But experiments and results such as these, afford," to quote Professor Michael Foster, "no sound basis for any conclusion as to the general physiological effect of alcohol, or as to its usefulness as part of an ordinary diet? it does not justify such a conclusion, for example, as that alcoholic drinks, taken in moderation, by diminishing metabolism, economise the resources of the body. The prominent physiological problem of dietetics is not either to increase or diminish the metabolism of the body, but to direct that metabolism into proper channels; and whether, in each particular case, a given dose of alcohol gives a right or a wrong turn to the physiological processes of the body, depends on the particular circumstances of the case. For the action of all these bodies of which we are now speaking, in contrast with the actions of the food-stuffs proper, is not only complex, but variable; so complex and variable that simple experience is at present a more trustworthy guide than speculative physiology. We may add that the physiological action of alcoholic drinks is still further complicated by the fact that such drinks contain, besides ethylic alcohol, various other allied substances, whose action is even more potent than the ethylic alcohol itself, and whose presence very markedly determines the total effects of the drink."

That it does injuriously affect the body is evident from its well-known effects on business men and others who indulge in alcoholic liquors, and the result is very much the same whether spirits or beer be the form in which alcohol is taken. The fat, or rather bloated appearance, is due to the arrest of that wear that is so essential to a healthy body, and not to any direct fattening properties.

Before speaking of alcohol as a medicine, the question occurs: Is it necessary in health? To this an unhesitating "No" must be given. It is a confession of ill-health to say that without some form of alcoholic beverage one cannot get on. And here we meet with a large class—a class who



cannot be said to be in robust health, and yet who cannot be classed as invalids—who are doubtful, and whose medical advisers are doubtful, as to whether the health is not better maintained with a moderate supply of wine than without it. We think it to be a humiliating thing to have to confess, apart altogether from the ethics of the question, that any one thing is essential to life or health. It is a confession of poverty of resource which we are not prepared to make. At the same time it must be admitted that it is a convenient form of (so-called) stimulant—ready at hand and palatable, when taken in the form of, say a light French, Hungarian, or a medicated wine.

The principal action of alcohol is that of a narcotic when taken in full doses, and of a sedative in small doses. This is an important action, but one that is accompanied with much danger, in common with all remedies of this class. As their action is only palliative, they usually require repetition, and neurotic patients who are most in need of such remedies are least able to bear them. Nervous diseases and will-power are closely allied, and the soothing effects produced by stimulants are so irresistibly strong that a dangerous habit is entered upon almost before one is aware of it. Herein lies the danger, and it requires all the courage and strength of will on the part of the patient to resist it. For, to keep up the original effect, the dose requires to be frequently repeated and even increased.

There is another effect of alcohol which brings it within the category of dangerous drugs; we refer to its pleasurable sensation, and feeling of strength and warmth produced by its physiological action. It is useless to tell some people that this sense of strength and feeling of warmth is somewhat delusive. All animals are guided by their feelings, and man is no exception. When we eliminate "likings," these sensations make it most difficult to get patients to take a rational view of this question.

Finally, we would mention another thing that seems to favour the idea of

the strength-giving properties of alcohol. Instances are frequently seen of those who apparently live on stimulants, who drink much and eat little; nay, some who, for a considerable time, live entirely on spirits. This is not due to any alimentary properties of the alcohol, for, beyond the fact, already mentioned, of its diminishing wear and tear it does little else; but is an illustration of a familiar fact—viz., that whatever takes away the feeling of hunger prolongs life. It is a well-known fact that it is the feeling of hunger that kills, and that life may be prolonged for months on water alone, if from accident or disease there is no desire for food. Much of the apparent life-prolonging properties of alcohol depend on this fact; alcohol satisfies or destroys the appetite.

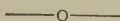
While we admit all this, there can be no doubt that alcohol has a stimulating effect on the stomach in small doses; as Dr. Lauder Brunton puts it, in speaking of digestion:—"In the case of ordinary meals taken by a healthy man, the food is quite sufficient to stimulate the various parts of the digestive canal, the nervous system, and the circulation sufficiently to ensure complete digestion. But if the meal be more than ordinarily heavy, if the person be exhausted by long fasting, by severe exertions, or have a weak digestion, other aid must be invoked. One of the most powerful stimulants, both to secretion and the circulation, is alcohol; and we find that persons of weak digestion sometimes take sherry and bitters before a meal, or take a glass of sherry with their soup. During the course of a meal, an effervescent wine like champagne is taken, the carbonic acid of which will stimulate absorption, while in the end a powerful stimulus is applied in the shape of a small glass of brandy or liqueur; and during dessert a quantity of wine is sipped, so that the effects of 'sipping' upon the circulation and nervous system are combined with the action of the alcohol and ethers contained in the wine."

This would seem to be the result of experience and science. It is another and a personal matter, the wisdom of



eating heavy dinners. And there can be no doubt that but for the aid of alcohol it would be impossible to get through with anything like comfort an aldermanic dinner.

It would be well, in connection with the whole subject, to bear in mind Dr. Johnson's saying:—"I can abstain, but I cannot refrain."



## THE LONGEVITY OF ABSTAINERS.

A PAPER "On the Vital Statistics of Total Abstainers, as shown by English Insurance Companies," was read by Dr. C. R. Drysdale, Senior Physician to the Metropolitan Hospital of London, at the meeting of the British Medical Association held at Bournemouth. The author observed that there seemed even yet to be some doubts even among medical statisticians as to whether total abstinence from alcoholic liquors was or was not conducive to health and longevity. The Collective Investigation Committee of the British Medical Association, indeed, had published some imperfect statistics concerning the age at death of 122 total abstainers and 4,234 non-abstaining males, some of whom were very moderate, moderate, immoderate, and hard drinkers. It turned out that most of the classes of drinkers had a higher age at death than the 122 total abstainers. These statistics were, of course, utterly valueless to actuaries; but, unfortunately, they were quoted in the daily newspapers, and made use of by those pecuniarily interested in promoting the sale of liquors, which it was alleged were proved to be very wholesome on account of the statistics emanating from the committee. The fallacy contained in this piece of statistics was similar to that which should compare the age of death of college students with that of judges on the bench. It was useless, and the real method used by actuaries was quite different, for they compared the death-rate at each age of life between different classes of persons, not the age of death, which, in the case of total abstainers, was evidently lower than that of non-abstainers, since total abstainers were mostly young persons as yet. Of course those who issued

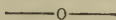
these statistics had explained that they were not to be supposed to sanction the intemperate use of alcoholic liquors, but that was not enough. The authors should have studied the principles of actuarial science before giving forth a very misleading set of figures, which had deceived even such able men as Dr. Haytor, of New Zealand and Australia, and others who might have been supposed to be better informed. As to the idea that intemperate persons lived as long, or were as healthy, as total abstainers, that was evidently a great error. For instance, Dr. Ogle, in one of the late reports of the Registrar-General of England and Wales, had taken 1,000 to represent the average mortality of all males in England and Wales of late years, and had remarked that, as compared with this average mortality, the deaths of publicans were 1,521, of brewers 1,362, and of servants in hotels and public-houses 2,025. His conclusion was that the mortality of persons directly connected with the liquor traffic was "appalling." Neison's statistics had proved the point long ago, and the late Mr. W. Wakley, Coroner for Central Middlesex, affirmed that drinking was the direct occasion of more than one-half of all the inquests held by him in London. In 1865, Lancereaux, of Paris, calculated that one death in twenty occurring in Parisian Hospitals was due to intemperate habits, and the inquiries of Dr. B. W. Richardson and the Harveian Society of London had resulted in making it probable that about 1,000 deaths weekly were due to alcohol-drinking in the United Kingdom. It was proved recently that the death-rate of grocers had risen considerably since the date when that

class of tradesmen was permitted to sell wine, beer, and spirits. In France, drunkenness had of late years spread considerably, especially through the northern departments; so much so, that in one of the lunatic asylums of Finisterre 40·34 per cent. of the insane inmates were cases of alcoholic insanity; whereas in the southern departments of France, where sobriety was prevalent, not more than 2 per cent. of the cases of insanity were attributed to alcohol. So much for the absurd idea that hard drinking was more conducive to health than total abstinence. None but those who had no clinical experience of disease could have believed this for a moment, since in every hospital the number of diseases caused by intemperance, in London and our other cities, was always a notable feature in the wards. The main debate lay as to the effect on health and longevity of total abstinence as compared with the ordinary use of alcohol among the average citizens who did not abandon its use. He thought that even this question had been settled from the results of various insurance companies which separated their total abstaining policyholders from the general or non-abstaining insurers. The main information to be gained on this subject was contained in the reports of the United Kingdom Temperance and General Provident Institution of London, and no fact in the history of medicine was more significant in the change of opinion on the question of the habitual use of alcohol by healthy persons, than the way in which this institution was founded. When the present chairman of the society, Mr. Robert Warner, applied, in the year 1840, to be allowed to insure his life in certain great London life assurance societies, he was told that, being a total abstainer from alcohol, his life was a risky one, and that he must therefore pay 10 per cent. more for his premium than ordinary insurers had to pay. The consequence of this action on the part of the then managing staff of these insurance companies was, that Mr. Warner established the United Kingdom Tempe-

rance and General Institution to enable total abstainers to participate in the benefits of insurance. This very successful office has for many years kept records of its insured members in two sections—the temperance, or abstainers, and the general, or non-abstaining. The result has been that between the years 1866 and 1890 in the temperance, or abstaining section, 4,857 deaths were expected to occur, but only 3,386 died; whereas, in the general section, or non-abstaining section, 7,276 deaths were expected, and 7,034 died. In 1890 the claims in the temperance section were 716 per cent. of the expectation; whereas, in the general section the actual claims were 100·2 per cent. of expectation. This was the true actuarial method of comparing mortality of different classes of people, as compared with the untrue method exemplified in the British Medical Association Society's Committee. Indeed, the results of another London life assurance company, the Sceptre, showed the fallacy of the "age at death" very clearly. That association insured in two sections, and it was found that between 1884-88 in the general section the actual deaths were 79 per cent. of the expected as compared with 56·4 per cent. in the temperance section. Yet in the general section of the Sceptre Association the average age at death of the 368 non-abstainers insured was 51·3, as against 44·2, the average age of death of the abstaining insurers. The meaning of this was that total abstinence from alcohol was a new idea, and hence those who insured in the temperance section were younger than the other insurers, and thus their average of death was lower, although their expectation of life at similar ages was so much higher as seen from the results. This lower mortality of total abstainers was now admitted by most of the actuaries of life insurance companies in London, as appeared from some inquiries made by the writer of the paper a few years ago. Even accidents were more frequent and more dangerous to non-abstainers than to total abstainers; and the Lancashire and Yorkshire Insurance

of Accidents Company gave a bonus of 10 per cent. to all of its total abstaining policy-holders who had been insured a year, as did the Accidents Insurance Company; and the British Empire Mutual Insurance Company and the Abstainers' and General Insurance Company gave evidence to the same effect. Naturally this law held more strongly among the working class benefit societies, since drinking habits were especially dangerous to the workers. Thus the Independent Order of Rechabites, a total abstinence society founded in 1835, showed at all ages, from eighteen up to seventy-three, a lower annual death-rate than the Ancient Order of Foresters, a non-abstaining society. Thus, at the age of twenty the death-rate among the Foresters was 7.29 per thousand per annum, against 5.59 among the Rechabites; at thirty, the figures were 8.07 to 5.12; at forty, they were 12.08 to 6.46; at fifty, 18.65 to 11.97; at sixty, 33.66 to 25.15, and at seventy, 72.0 to 65.0 (Neison's Vital Statistics). The Sons of Temperance, too, had a very low annual mortality of 7.5 per 1,000 members per annum. After the age of forty-four, the sickness rate of the sons of Temperance did not exceed one week in the year, up to the age of fifty-four; whereas in the non-abstaining societies of Foresters and Oddfellows, it rose gradually from one week at forty-four to six weeks at the age of fifty-four. And, at all ages, the annual death-rates of the Sons of Temperance were much below those of

either the Foresters or Oddfellows. The mortality of the clergy of the English Established Church had recently fallen greatly, since they began to be total abstainers in such large numbers. Thus, between 1861 and 1871 the mortality of the clergy between the ages of twenty-five and forty-five was 5.96 per 1,000; but between 1880-2 it fell to 4.64. But the Rechabite mortality at like ages was even lower than this, having been 4.50 per 1,000. The Scottish Temperance Life Association gave equally good results, only 34 per cent. of the deaths expected by the Healthy Male Table having occurred in that society. Lastly, at all ages, from twenty-five to sixty-five, the annual death-rate of the Rechabites was greatly below that of the Foresters, the *Healthy Males* of England and Wales, and the *Healthy Males* of twenty Life Assurance Companies. The *Abstainers and General Insurance Company, Limited*, of Birmingham, had issued a report on June 30, 1891, which "more than confirms the experience of similar institutions which have published a comparison of the mortality experienced by their Abstaining Policy-holders with that which was to be expected under the usual tables of mortality." It would, therefore, appear to have been proved by the most accurate proof, that total abstention from wine, beer, and spirits gives those who practise it a life more exempt from sickness and of longer duration in this country.



## PATENT MEDICINES AND ALCOHOL.

DR. EZRA M. HUNT, in a late number of the New York *Independent*, sounds a timely note of warning against alcoholic patent medicines. He quotes from a report on nostrums, proprietary medicines, and new drugs, which was read before the American

Association for the Cure of Inebriates, the following list of patent medicines, widely advertised and sold to all who can be induced to purchase, with the percentage of alcohol in each, as shown by careful analysis:

	Per cent. of Alcohol.		Per cent. of Alcohol.
Dr. Buckland's Scotch Oats Essence ... ..	35.	Flint's Quaker Bitters ...	21.4
(Also $\frac{1}{4}$ gr. morphine to the ounce.) A more insidious and dangerous fraud can scarcely be imagined, es- pecially when adminis- tered, as this is recom- mended, for the cure of inebriety or the opium habit.		Goodhue's Bitters ... ..	16.1
The "Best" Tonic ... ..	7.65	Hartshorn's Bitters ... ..	22.2
Carter's Physical Extract ...	22.	Hoofland's German Bitters ...	25.6
Hooker's Wigwam Tonic ...	20.7	"Entirely vegetable and free from alcoholic stimulant."	
Hoofland's German Tonic ...	29.3	Hop Bitters ... ..	12.
Hop Tonic ... ..	7.	Hostetter's Stomach Bitters ...	44.3
Howe's Arabian Tonic. "Not a rum drink" ... ..	13.2	Kaufmann's Sulphur Bitters ...	20.5
Jackson's Golden Seal Tonic ...	19.6	"Containing no alcohol." (In fact it contains no sul- phur, but 20.5 per cent. alcohol.)	
Liebig Co.'s Cocoa Beef Tonic	23.2	Kingsley's Iron Tonic ... ..	14.9
Parker's Tonic ... ..	41.6	Langley's Bitters ... ..	18.1
"A purely vegetable extract. Stimulus to the body with- out intoxicating. Inebri- ates struggling to reform will find its tonic and sus- taining influence on the nervous system a great help to their efforts."		Liverpool's Mexican Tonic Bitters ... ..	22.4
Schenck's Seaweed Tonic ...	19.5	Pierce's Indian Restorative Bitters ... ..	6.1
"Distilled from seaweed after the same manner as Jamaica spirits is from sugar-cane. It is, there- fore, entirely harmless and free from the injurious pro- perties of corn and rye whisky."		Z. Porter's Stomach Bitters ...	27.9
Atwood's Quinine Tonic Bit- ters ... ..	29.2	Rush's Bitters ... ..	35.
L. F. Atwood's Jaundice Bitters	22.3	Dr. Richardson's Concentrated Sherry Wine Bitters ...	47.5
Moses Atwood's Jaundice Bit- ters ... ..	17.1	"Three times daily or when there is a sensation of weakness or uneasiness at the stomach."	
H. Baxter's Mandrake Bitters	16.5	Secor's Cinchona Bitters ...	13.1
Boker's Stomach Bitters ...	42.6	Shony's German Bitters ...	21.5
Brown's Iron Bitters ... ..	19.7	Job Sweet's Strengthening Bitters ... ..	29.0
"Perfectly harmless. Not a substitute for whisky."		Thurston's Old Continental Bitters ... ..	11.4
Burdock Blood Bitters ...	25.2	Walker's Vinegar Bitters ...	6.1
Carter's Scotch Bitters ...	17.6	"Free from all alcoholic stimulants. Contains no spirit."	
Colton's Bitters ... ..	27.1	Warner's Safe Tonic Bitters ...	35.7
Copp's White Mountain Bitters	6.	Warren's Bilious Bitters ...	21.5
"Not an alcoholic beverage."		Wheeler's Tonic Sherry Wine Bitters ... ..	18.8
Drake's Plantation Bitters ...	33.2	Wheat Bitters ... ..	13.6
		Faith Whitcomb's Nerve Bit- ters ... ..	20.3
		Dr. Williams' Vegetable Jaun- dice Bitters ... ..	18.5

There can be no doubt but the use of such so-called medicines, largely self-prescribed, is the cause of great injury to thousands, and of the ruin, physical and moral, of many who become enslaved thereby to the destructive alcoholic appetite.



# ALCOHOLIC AND NON-ALCOHOLIC TREATMENT OF SOME FORMS OF HEMIPLEGIA.\*

By ALFRED CARPENTER, M.D.

In the year 1875, I published in the *Practitioner* a paper on the treatment of hemiplegia. In that paper I stated my reasons for urging upon medical practitioners the propriety of treating some of such cases by potash in preference to tonics and alcohol, in the belief that they are caused by embolism occurring in a gouty diathesis. Since that period I have met with many instances of paralysis in young men and women in which there has been extreme anæmia and often hysterical developments. In these cases I have always found excess of lithic acid in the urine or a strong tendency to rheumatism either in the joints or fibrous tissues. Many of these cases before I had seen them had been treated with quinine, iron-wine, nuxvomica and other tonics without permanent good effects. Paralysis had increased, the hysterical symptoms had become more decided, and the patient's nervous system materially affected. In such cases I have (notwithstanding the anæmia) thrown aside all such remedies, and adopted the use of alkalies, phosphate of soda, and a milk diet. A persistence in this mode of treatment has been uniformly successful—the use of potash salts until the wine has been all but neutral, phosphate of soda as an aperient, disallowing the use of chloride of sodium, encouraging out-of-door exercise in fresh air with such cheerful society as may negative the hysterical tendencies, using flannel next the skin, and the application of cold water to the skin when the season is suitable.

I will describe a typical case. A young woman aged nineteen was brought into my consulting-room quite unable to walk from hemiplegia affecting the left side, which on examination was shown to be due to hysterical conditions, and not to a

break-down of nerve centre. She responded equally on both sides to stimulation by the electric current. She had been overworking in preparing for public examinations, neglecting exercise, and using moderately some forms of so-called stimulants. She was fairly well-nourished, and had been for some months treated with iron, wine, and the allied tonics. These were at once changed for a milk diet and small doses of potash salts combined with a few grains of carbonate of ammonia. The use of a daily shower-bath followed by friction was prescribed—the season being summer—and a drive in the open air as frequently as possible. Six weeks later she walked into my room unsupported, all her hysterical symptoms having disappeared, and she described herself as quite well.

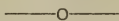
Case II. is that of a young man, about twenty-one years old, engaged in mercantile pursuits in the city of London. He had been working overtime and getting very little exercise in the fresh air. He became very anæmic, with shortness of breath on exertion; then hysterical in the evening, with neuralgic pains in different parts of the body and inability to sleep. Temporary loss of power occasionally supervened, now in a leg, now in an arm, with loss of appetite, and some discomfort in the epigastric region after taking food. His medical adviser prescribed iron, wine, nuxvomica, and malt liquors. The hysterical symptoms increased, notwithstanding the soothing influence of the alcohol; constipation became troublesome, headache frequent, fits of weeping on the least provocation. The remedies adopted had no really beneficial result. They were continued for more than six months, after which time he was advised to take the remedies prescribed in case No. I., with daily doses of phosphate of soda as an aperient, and removal from London into country air. A milk diet was

\* Read in the Medicine Section of the British Medical Association, Bournemouth, 31st July, 1891.

prescribed, with little or no meat. In less than two months his condition was entirely changed. He was able to take walking exercise for more than half an hour in the open air, and about six weeks later managed to walk more than two miles without fatigue. He was now advised to go to the south coast and remain out of doors as much as possible, fish and farinaceous puddings being added to his diet. He persevered with this treatment, until a certain day when he overwalked himself, doing more than ten miles. This was followed in the evening by hysterical symptoms and temporary loss of power on one side. He was seen by a local practitioner, who, alarmed at his anæmic state, ordered him wine and iron. In less than a fortnight the old symptoms returned, and when he was brought back to me again he had slipped back to his former powerless condition. I at once discontinued the use of wine, malt liquor, and steel, returning to the former prescriptions, and advising muscular rest, with the result that in less than a month the mischief produced by over-exertion and wrong treatment was in a great

measure removed. He now himself recognised the disadvantage of the other plan, and after about three months he took a voyage to the Cape, where he now is in the enjoyment of perfect health, able to use his muscular power equally with other men of his age and build, and studiously abstaining from the use of intoxicants.

A third class of cases are those which have not been under my entire care, but which I have seen occasionally, and in which my advice has not been followed. In these cases the paralysis has become more and more permanent, and the hysterical attacks more frequent, until the mind became weakened and death ensued, being generally brought on by some pulmonary and cerebral congestion. None of the cases of this character that I have seen, in which wine and tonics of the wine and quinine type have been used have recovered; while on the other hand those in which potash, fruit-salts, phosphate of soda and a milk diet, have been persistently followed, have always done well. I commend these facts to the consideration of my younger brethren.



## SOCIETY FOR THE STUDY OF INEBRIETY.

At a quarterly meeting held in the rooms of the Medical Society of London, on Tuesday, 6th October, the President, Dr. NORMAN KERR, called attention to the remarkable growth of public opinion in support of more drastic legislation for the care and treatment of inebriates. The very general agreement in favour of compulsory power to receive and detain such as have lost all power of voluntary application for admission to a Home for Inebriates for curative purposes, as exhibited in the recent prolonged correspondence in the *Daily Telegraph*, indicated an extraordinary advance in the estimation of the general public, in approval of compulsion. This proposal was endorsed by the editor, by many other newspapers and

journals, and by most of the recent scientific and medical congresses. Several of our colonies had enacted such a compulsory provision, some other countries possessed it, and public opinion was so ripening that the time was opportune for a resolute and widespread agitation in support of this proposal, which had practically originated from the medical profession. On the motion of Dr KERR, seconded by Dr. WILLIAMS, it was resolved to invite an expression of opinion in favour of compulsion, by individuals and by medical and other associations, and to urge the presentation of petitions to Parliament by all persons interested in the care and treatment of diseased inebriates.

A paper was read by Dr. WYNN

WESTCOTT, Deputy Coroner Central London and Middlesex, upon "Alcoholic Poisoning in London, and Heart Disease as the Fatal Result." After referring to two previous sets of statistics compiled by him, one on alcohol in relation to the general mortality, and the other in special reference to alcohol as a cause of sudden death, Dr. Wynn Westcott gave a summary of the results of a tabulation of 1,900 inquests held in London by himself. Of these cases, two-fifths were children and young persons under sixteen years of age; the remaining three-fifths or 1,150 supplied 255 cases in which medical evidence testified to alcohol as a direct factor in causing the death: this gave a proportion of one death due to alcohol in every 4.5 cases, a rise in percentage since 1888, when the proportion was one in 5.25 cases in the same district of London. Of these deaths due to alcohol, 38 were suicidal, 47 accidental, and 170 from natural (or unnatural) causes. The point especially dwelt upon, was that of this last class, 73 died of syncope due to fatty disease of the heart, leaving only 97 to the account of all other diseases; and again of all the deaths due to syncope there was proved alcoholic excess in more than one-third of the cases. Dr. Wynn Westcott looks upon alcoholic intemperance as the most frequent and important of all the causes of fatty degeneration of the heart; which was a disease very difficult to diagnose, and still more difficult to cure.

Mr. HILTON: In speaking of alcohol as a cause of fatty degeneration, did Dr. Westcott allude to alcohol as the cause, or was it the sugar in fermented beverages?

Dr. WESTCOTT: Those persons who came on his list would probably be very free drinkers, and he did not think the sugar was the cause of mischief.

Dr. GRAY (of Walsall): Having had a home for fifteen years, said he had no doubt that inebriates did suffer from heart affections. He had noticed more particularly, however, the effects upon the brain, and invariably whether they drank on right up to the time of

admittance, or whether they had left off; however lucid and accurate they might be about events years ago, things that had happened recently, or even the same day, they were always uncertain about, and often quite ignorant of. An Irish clergyman, a patient of his own, would converse well, but if a recent conversation were reverted to he would deny having ever mentioned the subject. It certainly was remarkable how the papers had dropped round to their way of thinking on legislation for compulsion. The great difficulty was that they could not control, but only lead.

Dr. JABEZ HOGG: Dr. Westcott's paper offered many suggestions of value. We invariably offer wine or spirits when a person faints in the street, while brandy rather hastens than retards the heart's action. It had never occurred to him that fatty degeneration was caused by alcohol; he believed a great deal of failure of sight was due to alcohol. They had been in the habit of attributing the cases less to heart than to brain disease.

Dr. JOSEPH SMITH bore testimony to the value of the paper, which was full of novel suggestions. He had lately seen two or three cases of sudden death from this cause.

Dr. JAMIESON said that, while it was true that English authors had failed to make mention of fatty degeneration from alcoholic indulgence, French authors emphasised it much. He also mentioned that sudden deaths alone came before the coroner's court, and it would be well to get returns from hospitals and private practice. French pathologists held that alcohol was a potent cause of aneurisms and heart disease. If the fatty degeneration were caused by the sugars in alcoholic beverages, then we should expect to find it in a marked degree in patients taking the grape cure, which was not the case.

Dr. MURRAY suggested that there might be other injuries to other organs, while the deaths might result as stated. He thought they should try to arrive at the distinction between effects of drunkenness and moderate drinking.



The PRESIDENT spoke of the marked value and importance of Dr. Wynn Westcott's facts, and of the strange absence of references in English medical treatises to alcohol as a cause of cardiac fatty degeneration. He (Dr. Kerr) had given evidence before the Coroner in some of the inquests tabulated by Dr. Wynn Westcott, and had long been of the opinion, as a result of post-mortem examination, that alcohol was the chief cause of fatal fatty degeneration of the heart. The walls of that vital organ he had often seen riddled, so to speak, with this degenerated structure, which so weakened the heart that fatal fainting ensued on even slight exertion.

Dr. WESTCOTT, in replying, mentioned corroborative evidence in the liver in many cases. He cordially thanked the Society for the vote of thanks which had been passed on the motion of the President, and hoped that medical writers in future would specify alcohol as a cause of fatty degeneration.

Mr. F. A. A. ROWLAND, Solicitor of the Supreme Court, read a paper on "The Principle of Compulsion, as Relating to Inebriety," in which he laid down that legal restraint in the case of disease must depend upon its peculiar circumstances. Even if inebriety were regarded simply as a vice, how far was the State justified in temporarily depriving the inebriate of his liberty in the public interest? A liar was left at full liberty while a thief was imprisoned, because experience had taught that property and civilisation could be preserved only by the legal restraint of thieves. In the United States, and some of our Colonies, as in France, inebriates (in France, other offenders also) could be restrained. Here the inebriate could only be retained in a Retreat for any period (not exceeding twelve months) which he had signed for, before two justices. The victim's consent was essential, yet in many cases the will-power has been so impaired as to render his voluntary assent impossible. For the poor the present law was inoperative. On the whole, Mr. Rowland believed there ought to be compulsory

power, and that provision should be made for the poor. The liberty to destroy the peace and happiness of a family was, after all, closely akin to the liberty to walk about disseminating small-pox, which was interdicted. There might be some simple process by which the friends of the victim might apply to a county court judge in his private room, the judge having power to compel the attendance of medical and other witnesses. Government Retreats might have similar powers to the Board Schools in compulsory education. Whether regarded as a disease or a vice, inebriety ought to be dealt with in some such efficient fashion in the interest of the public and of the individual.

Dr. GRAY said inebriety required treatment according to the season of the year. Bodily exercise was a great necessity. In winter there was no tennis or cricket; the fireside in winter had no curative effect. Benefit could only be obtained by manual labour. He mentioned a case which had come under his notice, of a man who had been discharged from his Home and got a month's hard labour from the magistrate. There must be compulsory powers. To do any good, they must have compulsion under State permission.

Mr. HILTON said legislation of this kind would be valuable, but they needed legislation beyond it. He had seen inebriates who had abstained for seven, fifteen, and even twenty-five years, yet the crave still continued. There must be further legislation to put away the temptation.

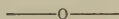
Dr. HOGG said there were in twelve months upwards of 161,000 convictions of inebriates, which showed the need of legislation to enforce restraint. If we had the power of interfering in domestic matters, such tragedies as the late Camden Town affair would not occur.

The PRESIDENT pointed out the special value of Mr. Rowland's suggestions and excellent paper, in that it was the production of a member of the legal profession, which as a body had in England hitherto stood in the way of compulsory legislation. Further,



Mr. Rowland's proposed disposal of applications for compulsory reception and detention by a county court judge was a practical suggestion which would remove many objections to compulsion. Other members of the legal

profession, on the Bench and at the bar (among the latter being their Associate Mr. J. R. Macilraith), were coming to their aid, and he trusted that effective legislation was in the near future.



### A CURIOUS FACT IN HEREDITY.

IN a contested will case, it appeared that the testator was never intoxicated except when he drank brandy. He used wine on the table for years, and drank other forms of strong spirits, yet never seemed to be disturbed mentally or be unconscious of his condition except when using brandy. In answer to the question why he appeared sane at all other times, and only insane and intoxicated when using brandy, it was ascertained that his father and grandfather were inveterate brandy drinkers, and that one brother became insane and died from using brandy. The testator had said that, while he liked the taste of brandy, it always went to his head and made him stupid. The conclusion was reached, that he had inherited from his parents a peculiar sensitiveness to brandy, some peculiar predisposition which favoured rapid intoxication from this form of spirits, and not from any other.

This seems to be the explanation of the commonly observed fact, that many drinking men cannot use certain forms of alcoholic drinks without becoming intoxicated. In a case of this kind, a man could not drink beer without being stupid, but could use whisky and other strong spirits daily with no such effects. Two grown sons of a man who drank champagne all his life, were always delirious when using this form of spirits. No other drinks seemed to affect them in this way. The transmission of a hypersensitiveness to some form of alcoholic drinks is theoretically along the line of many similar facts, and is a perfectly rational explanation of the unexpected and profound intoxications which are

seen among moderate drinkers who may change to a new form of drink. Such a case is now exciting much attention in a Western village. A clergyman who had drunk wine at meals for twenty years, and was never intoxicated, was given some hot rum after exposure to a storm. He became wildly intoxicated and produced a great scandal. His father was a West India sugar planter, and a rum-drinker. It is a fact often observed that moderate drinkers of beer, wine, or whisky will change the form of drink and rapidly become abject inebriates, and later have some dim realisation that they should not have used these special drinks, and remark, that "father used to take such and such drink, but I could not."

A wine-taster found that cider brandy would speedily intoxicate him, and have a different effect from any other form of spirits. His father was a New England farmer, and used this form of drink all his life.

It is a common fact that children of inebriates are either very sensitive to all forms of alcohol, or have an intense aversion to its taste and effects. In a few cases the nervous system is very slowly affected by alcohol; a low grade of nerve force is present, and large quantities of spirits have little or no influence for a time. Such a condition appears in descendants from alcoholics where states of race exhaustion have appeared. The field of heredity along this line is rich in new facts and new principles that reveal an exactness and certainty of movement that is both startling and astounding to the observer.—*Quarterly Journal of Inebriety.*

## British Medical Temperance Association.

—o—

*President.*

Dr. B. W. RICHARDSON, F.R.S.

### CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

### ENGLISH BRANCH.

#### NEW MEMBERS.

Dr. ADKINS, Greatworth, Banbury.

Dr. CHOWRY-MUTHU, Ilford, Essex.

Dr. MACPHAIL, 138, Stoke Newington Road, N.

Dr. NORWAY, Newquay, Cornwall.

Dr. ROBERTS, Ruabon.

#### NEW ASSOCIATE.

Mr. F. A. ST. JOHN, St. Mary's Hospital.

### NOTICE.

A Meeting of the Association will be held on Friday, January 22nd, 1892, in the rooms of the Medico-Chirurgical Society, 20, Hanover Square, London, at 4 p.m., at which a paper will be read by Dr. Crespi, on "Adulterations of Alcohol Beverages."

Members are reminded that their subscriptions for the current year are due.

J. J. RIDGE, M.D., *Honorary Secretary.*

*Carlton House, Enfield, January, 1891.*

### DISTRICT MEETING AT CLAPHAM.

A CONFERENCE of medical men residing in Clapham, London, S.W., and neighbourhood, was held on Friday, November 6th, in the Belmont Hall.

Dr. Richardson, who presided, said that the object of the Association in coming into a district like Clapham was to get the practitioners of the neighbourhood to discuss why there should be such a difference of opinion among medical men on the subject of total abstinence; the public was expecting more unity. There seemed to be four reasons for being separate. First, public opinion divides us, so many fight against abstinence, and this influences medical men who are dependent on the public. Again, some medical men say that medical

practice is not reforming, but simply administrative, and some regard it as not the duty of a doctor to do anything more than cure; but we do not practice merely for gain, and it is our duty not simply to be rectifiers, but reformers. He regarded this as the right policy, and it would win in the long run. A third cause of difference was the tradition that alcohol was necessary. It used to be taught that it had sustaining power, was a food, and necessary in collapse. But there was never any experimental basis for this, it was always taken for granted. Even Liebig did not challenge it, except as to Bavarian beer, which he pronounced not to be a food. Any medical men who would examine it

would find that there could be no value as a food, it could not feed muscle, and it reduced temperature both in animals and men. Hence it could not sustain warmth, only as a temporary flush, a sort of erythema. All the finer functions of the nervous system were interfered with from the first. These things ought to be regarded. The late Dr. Percy was one of the first men who worked at the question, and he opposed the idea that alcohol would sustain. Brodie said it only wearied out the nervous system. But, fourthly, there was experience, and medical men brought this forward as in favour of alcohol. Dr. Savage recently had cited fifty-four cases of influenza, and specially cases in which there was delirium, and said that some of the cases had recovered in consequence of the free use of alcohol; but he had no right to say this, he could only say that they recovered while taking it. But Dr. Richardson had seen as bad a case, with pneumonia, as these could have been. He had not administered any stimulant, and a better recovery he had never seen. Another case had pneumonia and pleurisy, and two medical men who were relatives disputed as to the use of alcohol, and had sent for him to decide. He came to the conclusion that the delirium was partly from the disease and partly from alcohol. On stopping it there was immediate improvement. In another case alcohol was given, and he was supposed to be being "kept up" by alcohol, but died two hours after. He was not so illogical as to say that these other cases would have died if they had had alcohol. He only said that there were two sides to the question. He did not accept the doctrine that alcohol was necessary because he saw cases recover without it. But it might be said that these cases were not enough, but a broader basis was necessary. He had been in practice forty-two years, during twenty-one of which he gave alcohol as usual, regarding alcohol as a "sheet anchor," giving alcohol to "keep them up," and all the rest of the jargon. He could see now what wild language it

was. He changed, not from any philanthropic reason, but as a result of experiment. He now had not given alcohol for twenty-one years except as a weapon of precision, as alcohol of .830 specific gravity. Treating it in this way he had learned a great deal, and could compare the past and present on a large scale, and he was quite sure his results were more satisfactory; there was a quicker recovery without it. Its only use was as an antispasmodic and sometimes as an antiseptic, as in some cases of foetid stomach given with creosote. There were certain diseases not modified either way by it, as, for example, diphtheria. One of his children had died of it taking much alcohol. He had seen cases treated without it, and in severe and sudden cases he did not think it any good or harm. The cases were too extreme for any effect. In other cases it does mischief, as in delirium tremens, and in all febrile cases in which no good could be done except it were pushed to so great an extent as to reduce temperature, and then such havoc was produced in other ways as to be dangerous. Another influence was that medical men took alcohol themselves, and he had noticed as a rule that those who took most alcohol gave most to their patients. But when given up one's ideas changed; we said, "We get on very well without it ourselves, why did we give it?" He had met with a severe accident, and had a bad scalp wound, and at one time would have taken alcohol, but he did not, and was able to do his work next day. But a non-abstainer would probably have plied a patient with it. Our Association left every man free to give alcohol, but we urged personal abstinence, and felt sure that this would bring men round to our views in other respects.

Mr. SOPER had seen a similar case of a big scalp wound healing immediately in the case of a total abstainer. He would like to know if carbonate of ammonia had been given in the cases of pneumonia.

Dr. RICHARDSON replied that he had not, but only acetate of ammonia and infusion of bark.

In reply to questions he said he would not give alcohol in a bad third week of typhoid fever. He relied more on feeding.

Dr. RIDGE stated he had seen nitroglycerine act admirably in such bad cases. He referred also to the testimony given by Dr. Birdwood as to the production of delirium in smallpox by alcohol.

Dr. RICHARDSON confirmed this, and said it was Dr. Whitmore's and Dr. Marston's experience also.

Mr. H. A. W. CORYN asked whether the effect of alcohol was different in disease from that in health, as seemed to be the case with opium.

Dr. RICHARDSON said he had no reason to think so. The question of the relation of the actions of opium and alcohol was very interesting, and needed more inquiry.

Dr. WHEATON thought alcohol was necessary as a food in long-continued fevers as typhoid, especially in relapses; but it might be given injudiciously, as too strong.

Dr. RICHARDSON said that the ænanthic ether in brandy was a deadly poison, almost as strong as nicotine.

Dr. MOIR stated that he had attended the men in the Beckton Gas Works, and had had 3,000 cases of smallpox, among them 119 severe cases. The mortality was 11 per cent. against a usual percentage of 19.

There was a subsequent discussion in which a question was pressed as to whether one or two glasses of hock produced any injurious result, if not exceeded. But it was pointed out that this hypothesis begged the question, as there always had been and always would be a percentage of cases in which the small dose prepared the way, and developed a desire for more, and led to excess. It was also pointed out that the small dose mentioned produced actual physiological effects which were not improvements.

After the conference those present, with others, attended a reception held by Mr. and Mrs. W. S. Caine, of Clapham Common.

### IRISH CENTRAL BRANCH.

The annual meeting of the Irish Central Branch of this Association was held at the Royal College of Surgeons, Dublin, on the 12th November. Mr. Henry Gray Croly was unavoidably absent, and his place as chairman was occupied by Dr. COLLINS, the vice-president. Amongst those present were:—Dr. Joynt, Dr. M<sup>c</sup>Dowell Cosgrave, Dr. Bradley, Dr. S. Thompson, Dr. Cope, Dr. Atock, Dr. Delahoyde, Dr. R. B. Sealy, Dr. W. J. Thompson, Dr. F. J. Davys, Dr. J. Wallace Boyce, Messrs. R. W. Merrick, and S. J. Scott.

The annual report, which was read by Dr. J. WALLACE BOYCE, hon. sec., showed that the number of members was forty, and associates forty-seven.

The adoption of the report was moved by Dr. M<sup>c</sup>DOWELL COSGRAVE, who said that a large number of medical men who were not members of this society did a great deal to assist the public to understand the dangers of trusting to alcohol as a food, or

using it as a source of strength in weakness. In view of this, the strength and influence of the society could not be measured by the mere number of its members. Since the local branches had been formed their numbers had increased, but for two or three years they had been at a standstill. In order to increase their numbers they must try to improve the means of meeting the young men who were joining the medical schools.

Dr. S. THOMPSON seconded the resolution. He said that the society did not interfere with the rational or necessary administration of alcohol in diseases.

The resolution was carried.

Dr. W. J. THOMPSON proposed the election of the members of the council and officers for the ensuing year. In so doing he said that medical men who had given up prescribing alcohol, and trusting to the British pharmacopœia, had found their cases turn out more satisfactory than if they had de-



pended upon alcohol. This was the more to be remarked in view of the prevalence of typhoid fever in the city at the present time.

Dr. ATOCK seconded the resolution, and it was unanimously carried.

Dr. JOYNT proposed—"That such an association as this, whose objects are to advance the practice of total abstinence in and through the medical profession, and to promote investigation as to the action of alcohol in health and disease, which require no pledge nor interference with the liberty of members to prescribe alcohol, deserves the support of the medical profession."

Dr. BRADLEY (Drogheda) seconded the resolution, and it was carried unanimously.

A vote of thanks was passed to Dr. COLLINS for having presided.

Dr. COLLINS, in returning thanks, said that, as a medical man who had been in practice for fifty years, he had no hesitation in saying that in his opinion the man who abstained from alcoholic drinks from his youth upwards (unless under the direction of a medical man when it became desirable to have recourse to them in cases of extreme weakness and illness, such as typhoid fever) would, as a general rule, fare best in health, and would avoid many sources of annoyance and illness that others suffered from who took even a moderate quantity of alcoholic liquor without going into excess.

The proceedings then terminated.



## Notes and Extracts.

THE NATIONAL TEMPERANCE HOSPITAL in Chicago reports that during the last year 140 patients have been treated, and 98 surgical operations performed, with a mortality of only 5 per cent.

ALCOHOL IN THE WORKHOUSE.—By a majority of eleven to six, the Bedminster Board of Guardians passed, on the 17th November, the following resolution:—"That no inmate of this house, employed as nurse, or in any other capacity, be allowed alcohol, except upon the special recommendation of the medical officer, in pursuance of the regulations of the Local Government Board."

ALCOHOL IN GANGRENE.—Dr. Alingham reports, in the *Canada Lancet*, a case of gangrene of the finger which was steadily advancing into the hand in spite of active treatment. He finally succeeded in checking further progress by immersing the hand in a vessel of alcohol kept warm by means of a coil of rubber tubing in the bottom of the pitcher through which hot water was made to flow. After about sixty hours

the alcohol bath was replaced by one of boracic acid solution kept warm by means of the coil of rubber tubing. This acted as a poultice, and in a short time the gangrenous portion separated, leaving enough living tissue next the bone to throw out granulations.

HABITUAL DRUNKARDS AND "THEIR OWN AFFAIRS."—There is much curiosity in Germany as to the final form which the Bill to restrain the liberty of habitual drunkards will assume. The proposals to take from them the management of their own affairs and put it into the hands of trustees have excited much criticism. The discretion of a habitual drunkard is not worth much, and very often lands his family in the most dismal ruin. Still, caution is required before dealing a blow at the principle of self-dependence and self-respect, which in the early stages of habitual drunkenness still exists and sometimes saves the unhappy victim. In England legislation with regard to habitual drunkards is still very defective.—*Lancet*.

A MEDICAL MISSION WITHOUT ALCOHOL.—At the sixteenth annual meeting of the Birmingham Medical Mission, held under the presidency of Dr. Savage, it was reported that during the last twelve months, with one doctor and three branches, 5,494 cases had been attended to, involving 23,795 consultations, including 1,247 visits to the homes of the patients. Dr. Crabbe mentioned that they had a large accession of cases during the influenza epidemic, but none of the patients had died, nor had they lost any during the last severe winter. "That small mortality was due, he felt quite sure, to the fact that they never gave their patients any alcohol, and so it was no use for anybody to send them, as one gentleman did, a dozen of nice port, as they had to return it. Their temperance work had been reorganised, and they had recorded fifteen times more pledges than in the year before."

EFFECT OF ALCOHOL ON THE KIDNEY.—Dr. Karl Glaser has found (*Deutsch. Med. Woch.*, No. 43, Abstr. i. *Fortschr. d. Med.*, No. 22, 1891) that the temporary ingestion of alcohol produces an irritant effect on the kidneys, as shown by the examination of the urine of a number of healthy young men in whom, prior to taking the alcohol, the urine was free from albumen. He found that the urinary sediment contained leucocytes and tube casts, as well as large quantities of crystals of oxalates and uric acid. He found, also, that the effect of a single potation did not last beyond thirty-six hours, but continued excess in drinking has a cumulative action. Even moderate quantities of alcohol have some influence in increasing the number of leucocytes, casts, and fattily degenerated epithelia; still, two individuals who each consumed from three to four litres of beer daily were exceptional in showing no tube casts, and it is surmised that their kidneys had become habituated to the action of alcohol.—*Lancet*, December 19th.

TEETOTALISM AND HEART DISEASE.—Some attention has been attracted by the County Council for Somerset to the Report of Mr. G.

Barnes, medical officer of health for the town of Chard, on the ground that Mr. Barnes "ascribes the prevalence of heart disease to teetotalism." This somewhat strains the contention in the report, where it is shown that a number of those who crave for the alcoholic stimulant and pledge themselves not to touch it resort inordinately to other stimulants, such as tobacco, coffee, and tea; and that it is in this indirect way that teetotalism has an influence in the sense indicated. But, after all, the population of Chard need not be very much alarmed. During the past five years twenty-one deaths from heart disease have been registered in a population of over 2,400 people—namely, an average of some five per annum. Whatever the influence of tobacco, tea, &c., as alternatives to alcohol, may be on the population as a whole, the mischief induced in this way at Chard is not as yet very widespread.—*Lancet*.

INFANT MORTALITY AND DRINKING.—"The Slaughter of the Innocents" was the title of a lecture delivered at Leicester, in November, by Dr. J. H. Neale, who said that during the preceding ten and a half months Mr. Harvey, the Leicester coroner, had held inquisitions upon the bodies of 178 individuals, of whom no fewer than sixty-three were children under two years of age. Of these sixty-three infants, sixteen, or 25½ per cent., had been overlain, or accidentally suffocated by their parents; and twenty-four, or more than 38 per cent., were returned as having died of convulsions caused by improper feeding. Dr. Neale stated that "the main responsibility for these deaths he attributed to drunkenness going hand in hand with other vices, and the protection afforded by Government for the sale of lethal drugs;" and it was pointed out that in Leicester, as elsewhere, the great majority of cases of overlaying occurred between Saturday night and Monday morning, when drinking was more prevalent than on the other days of the week.

ALCOHOLISM IN SWITZERLAND.—A statement issued in Basle by the "So-

ciety for Combating the Use of Alcoholic Liquors," quoting official statistics, says:—"In the first three months of the year 1891, there were 1,869 deaths registered of persons over twenty years of age, in the fifteen largest towns of Switzerland. Of these 102 were caused by alcoholism, that is 5.4 per cent., or every nineteenth grown person. Out of the whole number 895 were men, eighty-eight of whom died either as the direct consequence of alcoholic liquors, or by some disease caused by the use of such liquors; that is 9.8 per cent., or every tenth man. And, even if any doubt existed as to the actual number of deaths caused by alcoholism, still the fact remains as to the presence of alcoholism. In other words, every tenth man in the Swiss towns will become a drunkard." On the same subject, one of the Swiss daily papers states that in the second three months of this year 133 deaths resulting from alcoholism were registered in the fifteen largest towns in Switzerland. Twenty-one of these were of women, and 112 of men.

**THE KEELEY CURE FOR DRUNKENNESS.**—Dr. N. S. Davis, of Chicago, the founder of the American Medical Association, and President of the American Medical Temperance Association, writes as follows:—"In reference to the merits of the Keeley cure for drunkenness, &c., at Dwight, Ill., I have only to say that it is simply one of the many impositions practised upon the public with the aid of the public press. It is well known that a certain proportion of those persons who had become addicted to the use of alcohol or opium, and make an honest effort to reform, succeed in doing so permanently under all systems of treatment, whether by drugs, inebriate asylums, or mere moral influence. And so, as some of Dr. Keeley's patients have thus far remained sober, but the great majority have relapsed, and many of those who have been enrolled in Keeley societies, have to keep on hand a bottle of his remedy for frequent use, whilst boasting of having been cured. No less than seventeen men, who had been

through Dr. Keeley's treatment at Dwight, have since been obliged to resort to the Washingtonian Home in this city, during the last twelve months."

**THE DEGENERATIVE TENDENCIES TRANSMITTED BY DRUNKARDS TO THEIR CHILDREN.**—Dr. L. Grenier has made an important contribution to the study of the above subject in his *Thèse de Paris*. His work is based upon 188 cases in which alcoholism was noted in the parents. The following are his principal conclusions, as given in the *Gazette Medicale de Paris*:—"The pernicious influence of inheritance attains its maximum when one of the parents is intoxicated at the time of conception. The children of drunkards show a marked inclination to excess in drink. About one-half become drunkards themselves. The majority of the offspring of drunkards have convulsions in early infancy. Epilepsy in the children may be taken as presumptive evidence of alcoholism in the parents, when it is not the reproduction of the same disease in the latter, or the indication of a neuropathic disposition of a whole family. Because of their unstable mental state, the children of drunkards furnish an enormous contingent to insanity. All varieties of insanity are found among them. Alcoholic insanity is more frequent among the offspring of drunkards than among the parents themselves—an additional proof of intellectual degeneration.—*Journal of Nervous and Mental Disease*."

**LONDON TEMPERANCE HOSPITAL.**—Report of 129 Surgical Cases treated without Alcohol by James Edmunds, M.D. (National Temperance Publication Depot.) This report will be specially interesting to members of the medical profession. The cases described comprise some of the most serious operations in surgery, as well as disorders of less gravity, indicating a wide range of experience; and it is interesting to learn that in no case was it deemed advisable by Dr. Edmunds to prescribe alcohol. "Nor did he afterwards consider that the omission of that drug had been attended

with ill results to any of the patients." It will be remembered that in the Temperance Hospital the rules under which the medical officers have charge of the patients do not exclude the prescription of alcohol as medicine. It is only necessary that cases treated with alcohol shall be regarded as "Exceptional Cases," and shall each be duly recorded at the time by the medical officer in charge, and afterwards printed in the annual reports. The chief defect in Dr. Edmund's valuable *brochure* is the want of an analysis of the cases which would enable the reader to grasp their meaning without investigating the details—a task that busy professional men may find it difficult to overtake.

THE BELGIAN LAWS AND DIPSO-MANIA.—Dr. Forbes Winslow (Wimpole Street, W.) writes; I have seen some remarks in the *British Medical Journal* of 7th November as to the confinement legally of dipsomaniacs. The establishments alluded to are in various parts of Belgium, and are all under the same laws and official visitation. English subjects are here treated under supervision and medical treatment, and are as likely to have their interests protected as foreigners who are placed in an asylum in our own country. The Article 8 (de la Loi et 34, 35, 36, and 37 du Règlement Organique of the Belgian Code) provides for the legal reception of persons of unsound mind on proper forms and certificates, which can be previously signed by any medical man in England. The law also recognises what we fail to do here—namely, that dipsomania is a form of mental disorder, and one to be legally dealt with. Of course, sooner or later the law must come to this in England, but, in the meantime, we must appeal to other countries more sensible than our own who recognise this fact. At most of these establishments English is freely spoken, and the inmates are inspected officially more often than is the case in our own country. The certificates and other documents necessary for admission can be signed in England on proper forms provided for that purpose. At

a recent visit to Belgium I made myself *au courant* with the various establishments, and with the working of the law as well, and there is no danger in the liberty of the subject being unnecessarily interfered with, or in persons being confined who are not fit subjects for detention.—*British Medical Journal*.

A PHYSICIAN ON DRINK STATISTICS.—A Hospital Physician, writing in the *Newcastle Daily Chronicle* (Nov. 3), about Dr. Isambard Owen's statistics, explains that "teetotalism is a comparatively new idea even yet, and it has taken far more hold on the rising generation than on the old folks, who naturally dislike to change the habits they had formed before total abstinence was heard of. Wherefore the immense majority of teetotalers are young. I think I should not be wrong in stating that in the clergy of all denominations there are not 10 per cent. who are not total abstainers among those under thirty-five years of age. But it is likely that the exact converse of this would be found among those over fifty-five. In the general population the difference is not so extreme. But it lies in the same direction. Obviously, therefore, if there is any mortality among teetotalers at all, their ages at death must average lower than the ages of drinkers. Teetotalism makes no pretence of securing immortality, although (to anyone who will be at the pains to study the facts on record) it is clearly proved to lengthen life. Let me give a parallel case. The average age at death of machine stocking-knitters is much lower than that of a woman who knits stockings by hand. Does that prove that the latter occupation tends to prolong life, and the former to shorten it? Oh, no! It is simply because machine-knitting is done by young girls, and hand-knitting is a favourite pastime of their grandmothers. Of course, all the machine-knitters, who are dead, have died young. A large proportion of the teetotalers who have died, up to the present date, have died young, simply because comparatively few old people are teetotalers."



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Original Contributions.

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DYSPEPSIA AMONG ABSTAINERS AND NON-  
ABSTAINERS.

By DR. J. J. RIDGE, *Physician to the London Temperance Hospital.*

ONE of the commonest of reasons given for the use of alcoholic liquors is that they assist digestion. This is not only a popular idea, but is endorsed by many medical authorities. Alcohol is supposed to increase the quantity of gastric juice, and this is assumed to insure more rapid and perfect digestion. Even if the fluid secreted by the stomach were actually increased, there is no evidence that this fluid is other than ordinary mucus, or its digestive power equal to that of normal gastric juice. Even if there were an increase of true gastric juice, it would by no means follow that digestion must be accelerated thereby. It may be taken as an axiom that in a normal stomach the amount of gastric juice secreted to digest a proper quantity of food will be just enough and no more. If more be secreted it will be superfluous, and so much waste of vital power; its excess may even cause derangement of function. If more food has been ingested than is required, it can be of no real service to digest it, and its disposal will unduly tax other organs of the body.

All these considerations, and others might be adduced, point to the desirability of letting well alone, and of avoiding unnatural irritants.

But it is alleged that as a matter of fact alcoholic liquors relieve indigestion and promote appetite. The anæsthetic action of alcohol is beyond dispute; but, on the other hand, the deadening of pain is no proof of the arrest of the morbid process. The improvement of appetite consequent on the use of ale, &c., which may sometimes occur, is chiefly due to the bitter principles which they contain. A natural appetite does not need stimulation.

But notwithstanding all this there are doubtless many who would still assert that minor degrees of indigestion are relieved or prevented by alcoholic liquors. It occurred to me that some light might be thrown on this vexed question by a search through the record of medical cases seen by me in the out-patient department of the London Temperance Hospital. Since 1886 I have kept a note of all the cases, stating whether they are abstainers or not, and the nature of their illness. Of this list there are 3,629 consecutive cases in which the particulars required are fully given. Of these, 2,453 were total abstainers, and 1,166 were drinkers. The fact I wished to ascertain was the proportion of each of these who were suffering from any of the forms of indigestion. The diagnosis of the cases had been made and recorded long before the idea of such an inquiry occurred to me. There was, therefore, no possibility of bias one way or the other, but a simple matter-of-fact enumeration. To make it more valuable I excluded all young children from the category as these would unduly swell the abstaining class.

Of the 2,453 abstainers I found that 668 were suffering from indigestion, gastric or intestinal, equal to 27·2 per cent.

Of the 1,166 non-abstainers no less than 452 were stated to be so suffering, equal to 38·7 per cent. Roughly speaking, three-eighths of the non-abstainers were dyspeptics, and only three-elevenths of the abstainers. So far, then, from abstinence from alcohol conducing to indigestion, the users of alcohol exceeded the abstainers by  $11\frac{1}{2}$  per cent. It is very clear, therefore, that whether alcoholic liquors relieve indigestion or no they are a common cause of it.

It must not be supposed that this excess of dyspepsia is due to excess in the use of alcohol. The number of excessive users who come to the Temperance Hospital is, in my experience, very few. Such people fight shy of this hospital unless they want to reform. Nearly all the cases are those of ordinary moderate drinkers. I do not affirm that all of them are suffering as a result of using alcohol; seeing that the proportion of abstainers to non-abstainers is nearly as three is to four it would be absurd to say that. But there is no apparent reason why the number in one class should be greater than in the other. If the proportion of abstainers had been the higher our opponents would have undoubtedly regarded it as a proof of the causation of dyspepsia by total abstinence. As the figures point the other way we may reasonably conclude that the ordinary use of alcoholic liquors is a common cause of dyspepsia.

I have not been able to determine that there is any particular variety of dyspepsia to which non-abstainers are more liable than abstainers. Apart from the acute gastric catarrh which is a con-

sequence of heavy drinking, many were suffering from hyperacidity and atony; but these cases, as is well known, are often due to other causes.

I have not come across any class of cases which cannot be cured or relieved without the use of alcohol. The causes are so numerous and often so complex that it is sometimes difficult to discover them, and, even if discovered, patients are not always able or willing to avoid them. Hence, although relieved for a time, the complaint is ever liable to recur. But there is no reason to imagine that any stomachs are so constituted that they cannot digest food without alcoholic liquors, and the use of them certainly appears to render the user more liable to some form of dyspepsia.



## PATENT MEDICINES AND ALCOHOL.

*By PROSSER JAMES, M.D., late Lecturer on Therapeutics at the London Hospital and Physician to the Throat Hospital.*

THE January number of this journal published, on the authority of Dr. Ezra Hunt, a list of American nostrums with the percentage of alcohol in each. In the forty-seven articles analysed alcohol was found in every one, the amount varying from 6 to 44·3 per cent. Only five contained less than 10 per cent. fourteen between ten and twenty, three of these having 19·5, 19·6 and 19·7. Seventeen contained between 20 and 30 per cent. The rest contained over 30 per cent., some over 40, *e.g.*, the following figures are found 41·6, 42·6, 44·3 and 47·5!

Few who reflect on the significance of these figures will venture to deny that the consumption of such liquids is fraught with danger, and yet there is no doubt that these so-called medicines are largely self-prescribed. The tinctures of the Pharmacopœia are generally administered in small doses, and it is to be presumed that when medical men order any of those in which the dose is considerable they take into account the effect of the contained spirit. The same may be said of the Vina of the B.P. of which the only two given in half-ounce doses are prepared with British orange wine, having an alcoholic strength of 10 to 12 per cent. Yet from the list before us it is evident that proprietors of quack remedies are advertising, and a thoughtless public purchasing, dangerous quantities of alcohol under the guise of "medicines."

It may be said that the articles under notice are American; but have we no reason to suspect that a similar pernicious trade is being carried on in this country? Further, is there not ground to fear that the medical profession has not fully realised its

responsibilities in this matter? If we take up a number of either of the medical journals we are assailed with the advertisements of distillers, wine merchants, brewers, and concoctors of nostrums. Suppose we admit that dealers in wines, spirits, or beer, may justifiably announce their readiness to supply medical men through the journals they are supposed to read, it does not follow that the conductors of those journals display professional good taste in selling their columns to this class of tradesmen. If proprietary journals risk their reputation in this way, that can be no excuse for the organ of a medical association; and yet what journal has descended so low into the abyss of quackery as the British Medical Association's organ? Since the time when a certain sherry was exploited at the Birmingham meeting the process of degeneration has continued, and even men like the late Dr. Alfred Carpenter seem to have been unable to arrest it.

But whatever apology may be made for advertising alcoholic beverages it is surely inexcusable for a medical journal to permit the announcement of special brands as cures for particular diseases. Yet, what is to be thought of "diabetes gin," or "Bright's disease whisky"? Does any one treat diabetes with gin, or Bright's disease with whisky, and if they should be pronounced curative, need we resort to distillers' advertisements for the information? Influenza has been put forward as a reason for buying this or that dealer's wine or stout, and combinations of alcohol and Liebig seem to have had quite a run. I saw a lady lately who had a positive horror of alcohol, and yet was taking every night a glass of one of these wines which had been recommended to her for insomnia. On learning from me its alcoholic strength she left off her dose, to her great benefit.

Now we come to professedly medicated wines, which brings us nearer to the American list. *Cuca* is a favourite drug in this form, and half a dozen varieties—British and foreign—are forced upon our notice. As to some we are told how much of the drug they represent—it would be more satisfactory to learn how much alcohol they contain, especially those of which the dose is a wineglassful with each meal. *Kola* wine threatens to be a rival to *cuca*, and one foreign maker advertises that he is the original introducer, and that his preparation "is the best restorative tonic." But he has rivals too, so that those who take their therapeutics from the advertisements in their journal may find the selection of "medicines" as uncertain as their practice is likely to be unsuccessful.

How are we to distinguish these proprietary articles from quack pills and powders? A good deal of indignation has lately been expended on a French paper, which said *Beecham's Pills* were largely prescribed by British practitioners. But was the error so



monstrous, when we remember that Laville's gout liqueur, Kutnow's asthma powders, Pulv. Jacobi ver., with many other "patent medicines," are advertised in our *professional* journals? I have heard it said that allowance should be made in the case of French or German articles; but it is to be hoped that the absurdity of such a distinction will be manifest to every British practitioner. If Laville is good medicine on this side the Channel, why not Holloway or Beecham on the other?

The American list already cited reveals a still more startling fact. Some of the strong alcoholic nostrums are actually advertised as free from alcohol—a fraud which deserves severe punishment. One with 19·7 per cent. of alcohol is puffed as "perfectly harmless, not a substitute for whisky." Another, with 19·5 per cent., as "entirely harmless, and free from the injurious properties of corn and rye whisky." Another, with 25·6 per cent., as "entirely vegetable, and free from alcoholic stimulant." Another, called Sulphur Bitters, is advertised as "containing no alcohol," but really contains 20·5 per cent. and no sulphur. Another, Parker's Tonic, contained, on analysis, 41·6 per cent., but is advertised as "a purely vegetable extract; stimulus to the body without intoxicating. Inebriates struggling to reform will find its tonic and sustaining influence on the nervous system a great help to their efforts." God pity the poor drunkard who is deluded into seeking a liquid containing 41·6 per cent. of alcohol as a help in his efforts to reform! And what of the advertiser who with "lying lips" assures his victims that the nostrum is not intoxicating. Surely this must be the most atrocious of all the cruelties of the patent medicine trade. Alas, no! In this—

" . . . lowest deep, a lower deep

Still . . . . . opens wide,"

for in the same American list another nostrum appears, in which analysis gave 35·0 per cent. of alcohol, and in addition a quarter of a grain of morphia to the ounce! And this liquid is recommended "for the cure of inebriety or the opium habit"! A good deal of vituperation has been expended on the liquor traffic; but the publican who supplies a half-drunk customer with more drink does not assure him that it is non-intoxicating, still less does he tempt him with the assurance that it will help him in his struggles to reform. But here we have alcohol and opium combined in one draught, and advertised as a cure for the craving after either. What language can describe the turpitude of the vendors of such a cure? Well might Mr. Bung himself, on learning the facts, cry out for power to—

"put a whip in every honest hand,

To lash the scoundrels naked through the world."



## Miscellaneous Communications.



### A MEDICAL VIEW OF TEMPERANCE.

IN delivering, on the 14th of December, a lecture upon temperance to the members of the Paignton Athenæum, Dr. Odell, of Torquay, commenced by quoting Cicero's definition of temperance as "the unyielding control of reason over lust, and over all wrong tendencies of the mind. Temperance means not only frugality, modesty, and self-government; it means abstinence from all things not good and entirely innocent in their character." He said that for the purpose of his lecture he could not imagine a better definition of the word temperance, for although he should be compelled by the limits of time to confine himself to temperance as applied to intoxicating drinks, yet he was proud to believe that many who, like himself, had taken the temperance pledge, accepted it in its fullest meaning. The basis of all intoxicating drink was alcohol, and therefore he should speak of alcohol as the active principle. The term was first applied to a fine powder used by Eastern women for staining their eyelids, and was afterwards employed to describe any impalpable powder, and by an extension of the idea of sublimation it was gradually applied to fluids and ultimately to spirits. Under no circumstances did nature produce intoxicating liquid. Its product was entirely the result of artificial means. Nothing could be more beautiful than the deadly nightshade, from which belladonna was extracted, a poison which as a drug was most useful. So nothing could be more beautiful than the vine; but would anyone venture to assert that these natural fruits of the earth had anything in common with the intoxicating, maddening liquor which is by artificial processes made by man? By no effort of thought was it possible to put dangerous and poisonous drinks in the same category as foods and drinks supplied by nature for man's natural

wants. It would almost seem a truism that an article of diet invented by man for his own use could not be of prime necessity. He may have accustomed himself to its use, and persuaded himself that he needs it, but if nature has not spontaneously placed it in his hands it is not essential to life. Not only does nature not provide intoxicating drinks, but does not create the need for them. It had been urged that total abstinence demanded the adoption of an unnatural habit of life, and it was declared that no nation or tribe was without its stimulant, and the use of it was appealed to as a natural instinct, implanted for wise purposes. In the first place the statement was untrue, for there were many races which existed without alcohol or stimulants, and moreover no fixed article was universal, some using stimulants, some narcotics, of various kinds. How could total abstinence be an unnatural habit when in life's earliest stages, when the frame was weakest, life was supported and thrived without the slightest aid from stimulants? If infants thrived without it, it could not be necessary for adults. The lower animals, whose physical powers surpass ours, were sustained by no other food than nature provides; and even in the case of man it had been proved that the sudden withdrawal of alcohol was in no way detrimental to health, as shown in the case of prisoners, whose health was really greatly benefited by involuntary abstinence. Food serves the offices of nourishment and heat, and he quoted Liebig's division—since considerably modified—of foods into two sharply marked classes, the albuminous and nitrogenous, which form tissue, and the starchy, which produce combustion and provide the warmth necessary. Now alcohol could by no possible process be made a food. It had nothing to build up the body and replace

the waste of tissue. Some thought that because ale and stout were made from barley they must contain some of its nutritious qualities, and the same with grapes and wine. The supposition was entirely wrong. There were 1,666 parts in ordinary beer of no nourishment at all to one part of nourishing matter. To drink beer to nourish was like swallowing a sack of chaff to get one grain of wheat. There was less nourishment in a glass of port wine than in a few raisins, even if it were possible to obtain the wine pure, which was notoriously adulterated. The act of fermentation itself almost entirely destroyed the nutritive qualities. Sugar was nutritious, but the greater part of it was lost in active fermentation. Barley nourishes, but the constituents which form flesh, in being turned into alcohol left little nourishment, and that in the form least adapted to absorption in the body. Experience confirmed the conclusions derived from analysis. He quoted the testimony of medical men who went through the siege of Paris that the large quantity of wines distributed formed no substitute for food, nor did they give warmth. Nothing would make a man feel cold more, or create a sense of hunger, than alcohol. The amount of alcohol was in whisky about 25 per cent., in porter about 3 per cent., in beer about 4 per cent. In large quantities alcohol caused death exactly like poison. It was impossible that that which in large doses destroyed life could in small doses support it. Alcohol arrested the decomposition of food, destroyed the plastic effect of the blood, and hindered the processes of digestion. Food was essential for life and health, but alcohol was not essential to either, and was not seldom the cause of disease. After taking food the desire for it ceased, but alcohol excited an abnormal craving for more. Food produced a healthy action, but alcohol always tended to derange that action and retard the process of digestion. But it was contended that alcohol does promote digestion and enhance the pleasures of the table. Even if true that alcohol promoted digestion that would

only prove it to be a medicine, but he contended that it was not true. Were it not rapidly absorbed its introduction into the stomach would be a complete bar to digestion. No doubt the first effect of alcohol was exciting; the powers were quickened, the tongue was loosened, and there was an exhilaration which seemed to enhance the pleasure of living; but only a certain amount of work was able to be taken out of the mind or body, and to try to force more was simply goading an exhausted horse. More than twenty years ago Sir William Savory advised overworked students not to take stimulants to goad their powers, and Sir Henry Thompson warned them against drinking if they would keep a sound mind in a sound body. One effect of alcohol was to stimulate the action of the heart and affect the brain, and for this reason Sir Andrew Clark, Dr. B. W. Richardson and others, said that brain workers were least able to bear the ravages of alcohol. Equally erroneous was the common notion that alcohol added to the muscular power. This could not be when it consumed the strength needed for to-morrow. The relation of alcohol to physical work had been placed upon a certain basis by researches made. The heart beat normally about seventy-three times a minute, or about a hundred thousand times in the twenty-four hours. During this period one ounce of alcohol would increase the beats by 4,300 more, and so on, so that eight ounces would increase the beats by over 12,000 or equal to a lifting power of twenty-four tons. The effect of this almost incredible excess of work was seen in subsequent exhaustion and feebleness. Hence the greatest workers and finest athletes were with scarcely an exception on the side of total abstinence—the late Captain Webb, Weston, Mills (the prince of bicyclists), and others. The manager of the Wild West Show told him that his people were nearly all abstainers, and had to be on account of the nature of their work. Lord Brassey said the best railway workers were teetotalers, and the most powerful gang of navvies ever known, who did more work in less



time than any other, were abstainers. Lord Wolseley had given his emphatic testimony to the necessity for abstinence on long marching expeditions. Before he (Dr. Odell) became an abstainer he tested the result for himself in a walking tour in Switzerland, first by taking water and then wine and beer. So long as he abstained he was always more fit for the journey than his companion, but when he joined the latter in drinking the position was reversed. Alcohol was useless to enable the body to bear extremes of temperature. The maintenance of an even temperature was of vital importance to life. The first effect of intoxicating drink was to produce a sensation of warmth, and that fact had been too generally assumed to be evidence of actual increase of heat, but this sensation was delusive. The blood was brought to the surface, and there was consequently a quicker radiation of heat from the body. What appeared to be an increase of heat was really a cooling process, and it was beyond all further controversy that the invariable effect of alcohol was to lower the temperature. Navigators to the Polar regions had testified that ardent spirits instead of warming men did the reverse, and rendered them less capable of standing against the cold. So in regard to the endurance of extreme heat. No men were exposed to a severer test than stokers in steamships in the Red Sea, and they drank barley water; alcohol would kill them. In tropical regions it was not the heat that killed, but the "glass." Some people had the idea that alcohol acted as a preservative in times of epidemic disease, yet if there was a single fact absolutely incontrovertible it was that alcohol in any form predisposes the body to disease. It had been proved that whenever an outbreak of cholera occurred the first to be attacked were those who indulged in drink, and the same remark applied to other diseases. Alcohol had absolutely no prophylactic virtue. In the fever hospital the deaths amounted to one-seventh of the temperate and to one-third of those who drank. It was useless to promote

health or prolong life. The Registrar-General's returns showed that of all occupations the most fatal was the liquor trade. The vital reports of insurance and benefit societies which tried to distinguish between abstainers and others furnished still more striking evidence. The United Kingdom Temperance and General Provident Institution kept the two sections separate, and in 1890 of the expected claims in the general section 97.2 per cent. actually fell in, whereas of the expected claims in the temperance section only 70.6 per cent. became due. The experience of twenty-one years confirmed this. In the temperance section 3,655 claims were expected and 2,579 were presented; in the general section 5,784 were expected, and there were actually 5,621. The statistics of other insurance societies were to the same effect, so that the universal adoption of total abstinence would mean a saving of 150,000 lives annually. Dividing the entire population into abstainers and non-abstainers, for every three of the former who died there were four of the latter. Turning to the physiological aspect of the case he mentioned that Sir William Gull stated before the Lords' inquiry that a great deal of injury was being done on the part of those who were moderate and were believed to be well. It sapped the health and the intellect, and he declared that in his experience alcohol was the most destructive agent he was aware of in this country. The lecturer went into a physiological description of the circulation of the blood, and showed how alcohol changed its character, composition, and action, thickened the blood, weakened the tissues, and affected the digestion, causing diseases of lungs, liver, and kidneys. Four-fifths of kidney disease was due to habitual drinking. It was not well understood that even the moderate use of alcohol perverted the functions of the liver and led to more or less serious disturbance. It was well known to fowl dealers that alcohol greatly enlarged the livers of those birds to which it was given for the purpose of producing a particular delicacy. He showed how it led to



dropsy, which was certainly fatal. Chronic disease of the liver induced by strong drink was not necessarily painful, and being slow in progress might give no alarm. Those who used intoxicating liquors could not be too frequently warned that their feelings were not a safe guide. Dr. Odell went on to deal with the effect of alcohol on the nerves. It exercised a deadly effect on the nerve centres, doing the greatest injury to body and brain. While it inflamed the baser passions, by its narcotic action, it lulled the "still small voice" within. Sir W. Foster, M.P., speaking solely as a physician, declared that the effect was steadily to degrade the person who took it. The tissue became lower; the brain became less of a brain, and a man thinks and acts worse than he would if he were a total abstainer, and there was a descent in all his moral qualities. Sir H. Thompson spoke of the ill-effects of the ordinary daily use of fermented drinks taken in quantities conventionally deemed moderate. There seemed to be a direct affinity of alcohol for the brain, and he mentioned the fact that a man sipping liquor got more drunk than one who gulped it down, also that workmen in wine vaults were intoxicated by the smell alone. Dealing next with the question of lunacy, he quoted from the *Western Morning News* some statistics of lunacy in Switzerland, showing the large proportion caused by alcoholism, and other statistics from France showed that this proportion was on the increase. The late Lord Shaftesbury said that

50 per cent. of the cases of lunacy in England were due to drinking. Over 5,000 idiots in this country were due to drunken parents, and one of the most awful effects of intoxicating drink was its hereditary consequences. Reference was then made to that terrible disease delirium tremens, which was due solely to alcohol, and the lecturer gave one instance which had come under his personal knowledge. He concluded by referring to the correspondence which took place in the *Times* last September on the subject of drinking and drunkenness, and said he could only endorse the statement in a leading article in the *British Medical Journal*, which, in alluding to the way it was initiated, said a more thoughtless and inaccurate letter had, perhaps, hardly ever appeared in the public Press. He was glad to see that the tendency of the medical profession was towards the cause of temperance. The extract he had read showed that one leading medical journal was throwing its influence in the right direction, and the same might be said, though in a less degree, of the *Lancet*, and other periodicals. There was also a medical temperance society, whose published journals were of inestimable value. There was in London a temperance hospital in which—except in rare instances, for reasons which were clearly stated—alcohol was excluded, and its results bore favourable comparison with any hospital in England. The tendency of the medical profession was towards temperance, and against the customs of fifty years ago.

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## THE MEDICAL ASPECT OF ALCOHOL.\*

By HENRY WILCOX, M.B., M.R.C.S.

THE past relation of the medical profession to this subject has not been a very creditable one. Until late years

this subject was never assigned its fullest importance. Such teaching as was given in the medical schools was generally the prejudiced opinion of one or other professor, who either was sceptical of any virtue in alcohol as a food or stimulant, or who prescribed

\* From a lecture published by George Smythe & Co., 187 and 188, Upper Thames Street, E.C.

it so lavishly and indiscriminately that the condition of certain wards of one of our largest hospitals, within my own memory, would be a disgrace to our modern ideas. The prescribing of stimulants in those days was in no way regulated by scientific thought, but appeared to be simply the result of the individual opinion of the surgeon, who in this matter felt himself untrammelled by science.

The medical profession has a large debt to humanity to atone for. Many a drinking habit has been unwittingly inculcated by the physician. Many are those who had never tasted wine before a serious illness who have risen from the bed of sickness with the worst of all diseases growing upon them. Not only do we deplore the lax manner in which stimulants have been prescribed, but we also deplore the neglect of the education of past generations of medical students at the various schools on this point. Every drug in our Pharmacopœia was taught, its medicinal properties and chemical constituents, its natural history and everything else that is known about it; but the most important and most death-dealing of all of them has been a free lance to every tyro of the healing art.

The last fifty years have witnessed a remarkable change not only in the medical profession but in public opinion in regard to alcohol and alcoholic habits and customs. It is not so very long ago since it was considered no disgrace to get drunk; on the contrary, it was quite the polite thing for a gentleman in society to do so, and the ability to stand a bottle or two of wine was regarded as the *sine quâ non* of a *bon vivant*, the passport to the select circles, the distinguishing mark of a man of breeding, and a habit which was not inconsistent with the religious profession. But nowadays, to be known as an habitual drunkard is to be utterly disgraced, and to incur the loss of all that good men and true hold dear. A man who is frequently intoxicated is shunned by his acquaintances and ostracised by society; while the mere suspicion of indulgence in strong drink is often a

hindrance to social advancement, and this not only among the cultured, educated, and refined, but among the working classes. No master will employ a workman whom he knows to be intemperate, and such a man is despised by the superior artisan. The workman himself knows that, if he would retain the confidence of his employer, attain proficiency in his handicraft, and better his circumstances, he must keep steady. This change in public opinion, which is one of the most hopeful signs of the times, renders it less necessary to dwell upon the evils of intemperance, which are admitted on all hands to be one of the greatest blots upon our social system, the chief cause of immorality, vice, and crime, and the great hindrance to the people's best interests; but the battle is now being waged between moderate drinking and total abstinence, and keen and severe is the contest, and momentous are the issues of the conflict. It behoves the combatants, therefore, to see that their weapons are sound and honest, and that their arguments are based upon scientific truth. Much as the temperance cause has suffered from the attacks of its opponents, I fear no little injury has been inflicted upon it through the mistaken zeal of some of its friends.

Nothing does a good cause more harm than misrepresentation, exaggeration, and false statements made by those who are anxious to serve it.

What we, as honest men and women, should desire to ascertain is the truth, and to follow wherever it leads us. I think we shall find that in this instance the truth, and nothing but the truth, will be sufficient for our purpose.

If we ask a man or woman why he or she takes alcohol, we shall probably receive a different answer in each case. Whereas most people take alcoholic drinks because they like them, very few have the honesty to say so; and, further than this, wherever the alcoholic habit is established, we may be sure the moral sense is proportionately impaired. So constantly is this the case, that it has almost become a

psychological axiom that a female who gets drunk rarely speaks the truth.

We shall get various answers, all based upon one or more of the following ideas:—

- (1.) ALCOHOL IS A FOOD, WHICH STRENGTHENS AND NOURISHES THE BODY.
- (2.) THAT IT IS A STIMULANT, WHICH IMPARTS ENERGY TO IT.
- (3.) THAT IT ASSISTS DIGESTION.
- (4.) THAT IT WARMS THE BODY AND KEEPS OUT THE COLD.
- (5.) THAT IT IS A POWERFUL REMEDY IN DISEASE.

(1.) IS ALCOHOL A FOOD, AND DOES IT GIVE SUPPORT TO THE BODY?—We are now confronted with the question, What is food? The various articles of food must either yield something to the nutrition of the tissues, or something to the production of animal heat. It has been proved beyond question that all the alcohol taken into the body is eliminated as alcohol; it is exhaled with the breath, perspired through the skin, excreted by the kidneys, as alcohol. It is not converted within the body into carbonic acid and water, therefore no heat is produced by chemical decomposition; it is eliminated and excreted, and gives nothing to the building up of tissue.

The laity still persist in regarding alcoholic drinks as strengthening and food-supplying agents. Our colliers take beer to help them to do their laborious work; mothers take porter to assist them to supply nourishment to their babies; invalids take port wine to strengthen them; and in a great many cases this is done in perfect honesty of purpose and sincerity of belief in the virtues of these drinks. Now, I venture to assert they are taken chiefly for the sake of the alcohol they contain; for wine without alcohol would be like the play of Hamlet with Hamlet omitted, and it is this we have mainly to reckon with when we speak of the effects of these compounds.

“If alcohol gives strength, why did Sir Garnet Wolseley forbid his men to take it when they were about to

attack Arabi and his wild horde, and to take that long and toilsome march across the African desert, by which they saved Cairo, and made one of the grandest cavalry charges in modern military history? In olden times it was supposed that British soldiers must be primed with grog before facing the foe; but Lord Wolseley and Sir Frederick Roberts know from experience that our red-coats and blue-jackets fight better and endure fatigue and exposure longer without alcohol than with it.

If alcohol gives strength, how came it that, in the last English Expedition to the North Pole, the explorers who first succumbed to the intense cold and exhausting fatigue were the men who used alcohol to “keep them up,” while the abstainers held out the longest? The failure of that expedition was to some extent due to an outbreak of scurvy among the men, through a deficiency of lime juice; and it is an open secret that the commander himself contributed to that outbreak by persisting in loading the sledging parties with rum—thus diminishing the supply of lime juice—contrary to the advice of the medical authorities at the Admiralty. It has been proved, beyond a shadow of question, that the use of alcohol in cold climates is most disastrous, all Arctic explorers being agreed that it is injurious to the men, and favours the development of that scourge, scurvy, which is even more fatal than the climate itself. In warm climates it is no less harmful, as witness the experience of Bruce, Livingstone, Stanley, Gordon, and others, who are unanimous in condemning it; and do we not know that the one thing our countrymen who go out to India are warned against is alcoholic drink?

Again, if alcohol gives strength, why is it that Professor Caville and the late Captain Webb both failed in their first attempts to swim the English Channel when they used it during the performance of the feats, and both succeeded in their second attempts when they abstained from it?

If alcohol gives strength, why do



Grace, the cricketer, Hanlon and Beach, the scullers, Weston, the pedestrian, the Oxford and Cambridge boat-racers, English and American cyclists, and all our champion athletes, tell us that to use it in their training diet is to court failure? One of the most imperative orders of the professional trainers to their pupils is to "stop your beer, and be strictly abstinent."

In one of the campaigns of the first Napoleon, a company of soldiers were ordered to march through one of the Alpine passes, in order to join the main body of the army a day or two later. It was in the winter, and the task was a perilous one. Foot-sore and weary, still they hoped to clear the pass before nightfall; but the cold and darkness overtook them, and they were forced to camp several thousand feet above the sea level, with the thermometer many degrees below zero. Their officer, although with a faint heart, tried to cheer his men, and, in the face of death, gave them liberty of action. A keg of rum was handed out, and each man was permitted to drink at his discretion. The old campaigners drank none, others drank moderately, and some drank to intoxication, and all composed themselves for sleep. When the *réveille* sounded in the morning, the first to spring to their feet were those who had drunk nothing, little the worse for the extreme cold; those who drank moderately were frost-bitten and benumbed with cold; while those who drank to intoxication never awoke again—they were dead and frozen.

Alcohol is a broken reed to trust to—a false friend, who is sure to fail us in the hour of need.

To what do such examples and tests as these point if not to the conclusion that, instead of strengthening, alcohol actually weakens the body, and renders it less able to stand fatigue—that, instead of helping work, it really hinders it? That this is so has been proved over and over again by observing its effects upon large bodies of workmen under different circumstances, such as harvesters, armies on the march, railway navvies, &c., and

the results have invariably shown that more work, and better work, is done without alcohol than with it.

(2.) IS ALCOHOL A STIMULANT?—A stimulant is something which imparts energy and force to the body in some way. The first visible effect of alcohol is a flushing of the face and general warmth of the body with increased action of the heart. The heart may be compared to a steam engine, with its governor for regulating the supply of steam from the boiler.

Like the engine, the heart is provided with a governor, its regulating or controlling nerve, which inhibits or restrains its action, which is proved by the fact that if this nerve be cut or paralysed, the heart at once begins to beat faster, and ultimately runs away, so to speak, like a brakeless locomotive going down an incline. This is exactly what alcohol does, making the heart beat faster by temporarily paralysing its regulating or controlling nerve, and removing the brake or lifting the governor, so that, freed from its natural control, it runs away. Alcohol, therefore, acts not by stimulating the energiser, but by paralysing the regulator of the heart; not by supplying more force or energy, but by liberating the existing supply, and thus causing it to be exhausted sooner. And the same is true of all the blood vessels; their vaso-motor nerves, as they are called, which control their size, being paralysed, they dilate and become too full of blood. Hence the flushing of the skin and the rapid action of the heart are due, not to stimulation, but to paralysis, and hence alcohol ought to be regarded as a sedative and narcotic rather than a stimulant, the apparent stimulation being rather due to paralysis.

And this narcotic or paralysing action will serve to explain all the results which follow its administration. For instance, a tired man no longer feels tired, and a hungry man is no longer hungry, after a glass of spirits. Why? Not because the tired feeling is removed and the hunger satisfied, but because the alcohol has paralysed these sensations for the time being. A sleepless man takes a "nightcap"



of whisky and water, but instead of being stimulated and kept awake he is soothed to sleep; and its power of benumbing pain is well known. Again, a man suffering from grief takes to drink, not because he thinks it will stimulate him to a keener sense of it, but to "drown his sorrow." In calling alcohol a stimulant, therefore, we are surely using a misnomer, for it is one of the most powerful sedatives known.

3. DOES ALCOHOL ASSIST DIGESTION?—Ever since St. Paul advised Timothy to take a little wine for his stomach's sake, it has been asserted that alcohol is good for the stomach.

The worthy people who rely upon this text forget that the advice was given by one who was not a physician to one who suffered from an unhealthy stomach, for which a physician would probably have prescribed "a little medicine" instead of "a little wine."

To make a word of well-meant advice, given under such circumstances of universal application, an excuse for taking not only "a little wine," but a daily allowance of beer, porter, whisky, gin, &c., whether our stomachs are weak or not, is surely the height of absurdity.

As to whether alcohol does assist digestion or not, I think I cannot do better than quote the words of Sir William Roberts, who, in his "Lectures on Dietetics and Dyspepsia," champions the cause of alcohol.

I quote from Dr. Ridge's admirable summary of Sir William's conclusions from his own experiment on this point.

"It was found that no quantity of alcohol, in any mixture, ever increased the rapidity of digestion, and that, while 5 per cent. of spirits and port, or 10 per cent. of hock and claret, did not produce any appreciable effect, more than this slightly retarded the process and this retardation increased *par passu* with the increase of the amount present.

"Sherry hindered digestion even when but 5 per cent. was present. . . . The national beverage, beer, gave no better result.

"It does not assist the chemical process of digestion, and more than 10 per cent. does evident harm."

It is true that, if a man eat more than he ought to do, alcohol will remove the unpleasant symptoms; but this is due, not to a quickening of the digestion, but to a benumbing effect upon the nerves of the stomach, and the inference to be drawn from it is, not that alcohol is good, but that over-eating is bad.

4. DOES ALCOHOL WARM THE BODY?—There are few ideas more tenaciously clung to than this—that a glass of spirits taken before going out on a cold night will warm the body and "keep out the cold," as it is said; but the truth is that, instead of doing this, it really cools it, and lets the cold in by sending the blood, which contains the heat, from the internal organs to the skin, where it is exposed to the air and rapidly cooled.

For it must be understood that the flushing is not confined to the face, but extends over the entire surface of the skin, and hence the glow and feeling of warmth are due to congestion of the blood-vessels of the skin, while the internal organs are deprived of their natural amount of blood and heat.

This congestion of the skin also tends to induce perspiration, the evaporation of which chills the surface, thus increasing the liability to "take cold."

That alcohol lowers the temperature of the body instead of raising it is now a thoroughly established fact in medical science.

5. ALCOHOL IN DISEASE.—That alcohol is a powerful and valuable drug in disease cannot be denied, but if we would receive the full benefit of this, as of any other drug, in illness, we must abstain from it in health. What good can we expect from alcohol as a medicine if we use it every day as a beverage? The very use of it thus, or as an occasional luxury, deprives it of its medicinal powers; and thus the abstainer when ill is better off than one who is accustomed to it, because his physician is armed with a weapon which the moderate drinker's has not. But of late years a great change has come over medical opinion in regard to alcohol and the temperance question.

There is an association called the British Medical Temperance Association, composed entirely of medical men and students, which now numbers over five hundred members, the only condition of membership being personal abstinence from alcoholic liquors as beverages, no pledge being required. But this society by no means represents the total number of abstaining doctors in the country, fully as many more being so in deed, if not in word—for it takes a certain amount of courage for a medical man to proclaim himself an abstainer—and these include not only the rank and file, but many of the leaders in the profession—University professors and distinguished metropolitan and provincial physicians and surgeons.

Any one who compares the present with the not very distant past must admit that alcohol no longer holds the place it formerly did. It is not now regarded as a panacea for every disease, and the *sine quâ non* of our *materia medica*.

Its value in disease is being seriously questioned. The sphere of its operation has been curtailed, and its prescription is much less frequent than it used to be. Like bleeding and other heroic methods of treatment, it is slowly succumbing to the irresistible influence of physiological experiment and clinical experience.

The treatment of fever by alcohol has been a thing of the past ever since the mortality in the wards of Dr. Gairdner, of Glasgow, was reduced from 36 to 8 per cent. solely by the reduction of alcohol to a minimum.

The statistics of the London Temperance Hospital, where no alcohol is ever prescribed, show that diseases in which it was formerly considered indispensable can be treated quite as successfully without it.

Another significant fact is, that, in nearly all our workhouses, hospitals and infirmaries, the amount of alcohol per head has been, and is still being, considerably reduced.



## EFFECTS OF ALCOHOL ON THE BODY.

By Mr. JOHN GOODFELLOW, F.R.M.S., *Professor of Hygiene at the Bow and Bromley Institute, Member of the Société Française d'Hygiène and Medallist in Hygiene.*

THE effects of alcohol on the body vary with the quantity taken and the time which elapses between each successive dose. In anything like large quantities, it produces the effect of an irritant narcotic poison, first stimulating the nervous and circulatory systems, and then lowering their sensibility and power.

Among the important general effects of alcohol may be mentioned its action on the red corpuscles of the blood. These minute bodies are concerned in conveying oxygen gas to the tissues. By means of the oxygen which is given up by the red corpuscles, the tissue units, and the substances in their immediate vicinity are oxidised, and so the heat of the body is maintained. Now, alcohol so acts on the red corpuscles that they carry less oxygen, and the oxygen which they

do contain is not dissociated so easily as in the normal condition. This results in lessened oxidation, and a consequent storage of material in the body. It is probable that the fattening tendency of alcohol is largely due to this action, and the fact that an individual can live for a long time on an insufficient diet, if supplied with alcohol, may also be satisfactorily explained by the action of alcohol in diminishing the rate of oxidation going on in the tissues. It is not a desirable thing in health, however, to induce a condition of the body characterised by sluggish oxidation. The organs require a plentiful supply of oxygen in order to perform their functions vigorously, and, within reasonable limits, the organs are benefited by active oxidation. Slow combustion is favourable to the retention of waste bodies

in the tissues, and often muscular tissue undergoes fatty degeneration, under the influence of the decreased rate of oxidation. It will be convenient if the effects of alcohol on the body be studied under the following heads:—

1. The effects of a single moderate dose.

2. The effects of continued moderate doses, taken at intervals.

3. The effects of a single excessive dose.

4. The effects of continued excessive doses, taken at intervals.

5. The effects on certain organs, and the influence which alcohol exerts on the due performance of their functions.

#### I. THE EFFECTS OF A SINGLE MODERATE DOSE.

(A glass of wine, a glass of malt liquor, or a tablespoonful of brandy or whisky.)

The alcohol first acts as a local irritant to the nerves and blood-vessels of the mouth and gullet, so that a "nipping" sensation is often felt. The blood-vessels dilate under the action of the stimulus, and the mucous membrane becomes quite red owing to the influx of blood. Minute quantities of alcohol are probably absorbed in the gullet. A similar effect is produced on the mucous membrane of the stomach, by the inhibitory action of the alcohol on the vaso-motor nerves of the small arteries. The mucous membrane soon becomes quite red, though this effect is not altogether due to the local action of the alcohol.

The alcohol is rapidly absorbed into the circulatory system, and is carried by the blood to all parts of the body. The alcohol now acts specifically on the red corpuscles, reducing their oxygen-carrying power, and also affects certain other organs. The vaso-motor nerve centres in the spinal cord are so influenced that inhibitory impulses pass down to the blood-vessels of the stomach, liver, and other parts, causing them to dilate, so that the local effect of alcohol is increased by the general effect produced by the action of the nerve centres of the spinal cord.

The individual is usually aware of these changes, for they are manifested as a feeling of warmth in the organs referred to.

The alcohol also acts on the heart, increasing the frequency of its beat. It has not yet been definitely ascertained in what direction the alcohol acts. But it is probable that the increased rate of the beat is due to a stimulation of the accelerating nerve centres in the spinal cord, combined with a local action on the nerve centres in the heart itself.

The increased circulation results in an increased flow of blood to the skin, giving rise to flushings and a feeling of warmth. Finally, the alcohol slightly affects the brain, acting as a stimulus to the metabolism of the brain cells. The effect of this, combined with the increased circulation of blood through the brain, is to cause a feeling of exhilaration and lightness. The imagination is stimulated, and the jocular side of an individual's mental organisation is usually sharpened and brought into prominence.

The increased circulation is often rendered visible by swollen veins on the back of the hand, and a study of the pulse proves conclusively that the heart is beating far above the normal rate. The feeling of warmth which is produced by the ingestion of alcohol is misleading, as alcohol really cools the body. The effect is produced by the warm blood acting as a stimulus to the heat nerves of the skin. As a matter of fact the warm blood, on reaching the skin, is really cooled by the loss of heat by conduction and radiation, and, in some instances by the evaporation of sweat.

After a time, the feeling of warmth in the skin, liver, &c., passes away, owing to the nerves having become used to the unusual stimulus, but the dilated condition of the blood-vessels, and the increased rate of circulation, continue for some time. The stimulation is usually followed by a period of reaction, in which the heart beats more slowly, and the brain becomes more inactive. This, in turn, gives place slowly to the normal condition. Summing up, we may say that the

alcohol stimulates the heart to extra work, without supplying material to recoup itself, and that the stimulation is followed by a period of exhaustion. It need hardly be added that in the case of a moderate dose of alcohol the reaction is very slight, so much so indeed, that in many cases it is unnoticed.

## 2. EFFECTS OF MODERATE QUANTITIES TAKEN AT REGULAR INTERVALS.

(A glass of whisky or brandy, two glasses of wine, or one pint of malt liquor per day.)

In addition to the effects which were described under the head of a "single moderate dose of alcohol," the continued ingestion of moderate quantities leads to certain permanent effects. The most important of these permanent effects is that produced on the red corpuscles of the blood. These minute bodies are concerned in carrying the oxygen from the lungs to the various tissues. Now, the quantity of oxygen supplied to the various organs largely determines the amount of oxidation which goes on. All things being equal, the larger the amount of oxygen supplied to an organ, the more rapid will be the oxidation.

Anything, therefore, which lessens the oxygen-carrying power of the red corpuscles, must also reduce the rapidity of the oxidations going on in the body, and lead to the accumulation of waste matters which would be in the normal condition oxidised into urea, carbon-dioxide, and water. At the same time the actual tissues do not waste so rapidly, so that decreased oxidations mean an increase of weight, or a less consumption of food.

Alcohol has such an effect on the red corpuscles as to reduce their power of holding oxygen, and this leads to the retention of waste matters. It is not perfectly clear how the alcohol acts on the red discs of the blood. But it is probable that it has a coagulating effect on the proteid framework of the corpuscle, causing the latter to decrease in size.

The retention of waste bodies in the tissues and blood is favoured by the local action of alcohol on the kidneys.

There can be no doubt that excretory action of the kidneys is reduced as far as solid bodies are concerned (urea-urib, &c.), by the action of alcohol. On this account alcoholic liquors are forbidden to those who suffer from gout or rheumatism.

Another effect of the continued use of alcohol is to favour inflammatory conditions of the body. It is now well-established that morbid discharges from inflamed mucous membranes are increased, and often rendered chronic, by the continued ingestion of even small doses of alcohol.

An effect of the continued use of alcohol when taken at a regular time every day, and which is little understood, is a rhythmic condition of the nervous system marked by a depression, which occurs at the same period every day at which the alcohol is taken, and which is often described by an individual as a "sinking feeling." This condition of the nervous system can only be removed at once by the ingestion of alcohol. It is probably that it is produced by the regular action of the alcohol on the nervous system at a certain fixed time. The nervous system is prone to fall into rhythmic actions and states, and there can be little doubt that the regular response of the nerve centres to the stimulus of the alcohol at last produces a condition in which they refuse to do their normal work without the additional stimulus.

The general effect, then, of the continued use of alcohol in moderate doses is to favour increase of weight, and to create such a desire for itself that it becomes a necessity to the individual at certain regular intervals. The consensus of opinion is decidedly in favour of the view that anything under two ounces of alcohol per day is not more injurious to the healthy body than many other substances we eat as part of our daily diet. In most diseased conditions of the body the smallest quantity of alcohol is injurious. It should be especially avoided even in moderate quantities by those who suffer from nervous diseases, heart disease, or are subject to gout or rheumatism.



3.—EFFECTS OF ALCOHOL WHEN TAKEN IN SUFFICIENT QUANTITIES TO PRODUCE INTOXICATION.

Many of the effects of alcohol which have been described in previous articles are due to the increased circulation, brought about by the action of the alcohol on the heart. But there can be no doubt that alcohol acts *directly* on the nerve centres. The effects which large quantities of alcohol produce on the brain and spinal cord, cannot be satisfactorily explained on the assumption that they are merely the result of the accelerated circulation. It is certain that alcohol has a specific action on the organs of the nervous system. It is this particular action on certain nerve centres in the brain and spinal cord which produces the condition known as intoxication.

Intoxication is marked by:—

- (1) Unbalanced reasoning.
- (2) Disturbances of the organs of special sense.
- (3) Unsteady gait.

It is somewhat difficult to trace out the chain of events which lead to this condition of the nervous system. The most which can accurately be done, is to indicate some of the more important changes which the alcohol produces in the metabolism of the nerve tissue. It has been pointed out that the action of alcohol on the body is followed by a reaction of the organs, marked by exhaustion and dullness. This reaction varies according to the amount of alcohol taken. During the production of the condition of the body known as intoxication, the reaction does not manifest itself until the individual ceases to ingest the alcohol, and the action on the nervous system is cumulative. The reason of this is, that the individual ingests the alcohol at short intervals, so that before the reaction from one dose manifests itself the action is intensified by a further quantity of alcohol. It is really the cumulative effect of small quantities of alcohol on the nervous system which usually produces intoxication. It is very seldom

that a sufficient quantity of alcohol to produce intoxication is taken in one dose. The first glasses of the liquor simply produce the effects already described in previous articles, but as the quantity of alcohol accumulates in the body a peculiar effect is produced on the brain, commonly described as "lightness" of the head. This gives way to a disturbance of the sight centres in the brain, producing double vision.

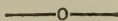
The alcohol now begins to act on the higher brain centres, so that the metabolic processes run loose. The reasoning of the individual is not marked by thought and logic, and utterances are often absurd or silly. At the same time the restraining influence of the will is weakened, so the hidden side of the mental organisation is usually brought to light. People who are habitually good-tempered, often become quarrelsome when drunk, and *vice versa*. The peculiarities of the character which are kept out of sight when sober reveal themselves when the restraining influence of the will is no longer exerted. Soon the nerve centres which govern the muscles are affected, especially those concerned in the maintenance of equilibrium.

The upright posture is maintained by the co-ordination of a large number of muscles. The co-ordination is effected by certain centres in the brain. When these centres are disturbed the individual either staggers or falls. Alcohol has the effect of destroying for the time being the guiding and controlling power of these centres, so that the person who partakes too freely of alcoholic beverages staggers and walks unsteadily. Vertigo is often produced, but how is not clear. If the ingestion of alcohol be stopped at this stage, the individual falls into a deep sleep, and wakes up to find himself out-of-sorts and comparatively exhausted. If the ingestion of the alcohol be continued, the effects are very marked, though they differ from those detailed above. The individual gradually loses control of every voluntary muscle of the body, and he falls into a state of coma,

characterised by a laboured pulse and stertorous breathing.

The reaction which follows after intoxication is much more pronounced than when only a moderate quantity is taken. The heart and brain are exhausted, the stomach is out of order, and the individual falls "all-to-pieces." The tongue is furred, showing the bad condition of the mucous membrane of the stomach; the eyes

are blood-shot, the lips are parched, and the hand trembles. These conditions indicate the terrible havoc which large doses of alcohol work on the body, and form a fitting punishment to the man or woman who indulges to that extent in alcohol, that the higher mental faculties are deadened and held in abeyance, while all that is bad is intensified and allowed to run riot.



### THE PRESCRIBING OF NARCOTICS.

(*Paper read at Queen's Medical Society, by DAVID WALSH, L.R.C.S. & P. Edin., Pathologist, Birmingham Workhouse Infirmary.*)

NARCOTICS may be defined as drugs which affect consciousness by depressing the cerebrum or medulla. They appear to exercise in some way a selective action on those parts of the nervous system, and their chief danger is an undue depression of the centres of circulation and respiration. There can be no doubt that nowadays the medicinal use of narcotics is very much on the wane. In the good old times the three great weapons of the practitioner of medicine were calomel, opium, and the bleeding lancet. Nor can it be questioned that opium and its allies, like mercury and phlebotomy, may be credited with the deaths of many of the victims to the then fashionable methods of treatment.

The best known medicinal narcotics are opium, chloral, belladonna, stramonium, hyoscyamus, alcohol, cannabis indica, and lupulus. They will be dealt with generally in the present paper, without any attempt to investigate their varying specific action on the nervous system. Of the drugs named the greater number will not require more than passing mention. Belladonna, for instance, is little used for its hypnotic or narcotic properties, and stramonium is valued mainly as a sedative in lung diseases. Hyoscyamus is given to control the action of purgatives, and its alkaloid, hyoscyamine, is valuable hypodermically to subdue maniacal excitement, one-sixth grain injected under the skin causing complete muscular prostration within a

quarter of an hour. Lupulin, the active principle of lupulus, is occasionally prescribed as a hypnotic.

Alcohol presents us with a familiar example of the progressive stages of narcotic poisoning. In moderate doses its first effect on the nervous system is one of stimulation. It acts as a spur to the intellectual faculties; the imagination is fired, and the speech-centres thrown into unusual activity. An increased dose causes depression of all centres of brain and cord, so that the faculties become first dulled and afterwards arrested. Muscular action, after a period of inco-ordination is finally paralysed. Unconsciousness stertorous breathing, and great circulatory depression ensue. There is thus a definite series of effects, including stimulation, sensory and motor paralysis, hypnotic action, and coma. Further, a typical picture of chronic narcotic poisoning is seen in the habitual drunkard. Indeed, no better examples could be kept in the mind's eye of the results of acute and of chronic narcotic poisoning than those afforded by the abuse of alcohol.

The two remaining drugs are chloral and opium. Of these, chloral is used chiefly as a pure and powerful hypnotic and it is only when dangerous doses are reached that it has a narcotic action. Opium, on the other hand, has several well-defined therapeutic effects. Thus, it is commonly given for the relief of pain, to produce sleep, or to paralyse muscular action. On

account of its manifold properties opium was formerly looked upon as the "gift of God," and up to recent times it was prescribed for nearly every disease under the sun. Modern medicine, however, has changed all that, so much so that many of the younger school of practitioners seem to have almost entirely dispensed with its services. An excessive reaction, however, of this kind is rarely altogether wise, and there can be little doubt that opium and its alkaloids are still capable of rendering valuable assistance in the treatment of disease. It will be of interest to enquire briefly what are the causes of the comparative disuse of this ancient remedy. The main considerations may be discussed under three heads, namely:—

1. The complex composition of opium.

2. Drugs of modern introduction used as substitutes.

3. Increased knowledge of the causation of disease and of pain as a symptom.

1. *Complex composition.*—Opium has been split up into a number of constituents, and its potency shown to depend chiefly on the amount of contained morphia. To use the latter alkaloid is obviously more scientific than to prescribe a variable preparation of the crude drug, such as the extract or tincture. Moreover, morphia is freed from the antagonistic action of the convulsants, theobane and narcotine, which are contained in opium.

2. *Modern substitutes.*—Opium, it may be at once admitted, stands without a rival in its general efficiency. Its specific therapeutic actions, nevertheless, are now to a great extent replaced by those of other remedies. Stimulation, for instance, is readily obtainable from alcohol or caffeine. Analgesia is sought for in substances that have a selective action, such as gelsemium, or in local anæsthetic applications, as carbolic acid or cocaine. For the relief of pain, opium has quite fallen into disuse in modern ophthalmic surgery, and has met with the same fate, though perhaps to a lesser extent, in obstetric practice. As regards its hypnotic

action, opium is dangerous because it is apt to depress the vital centres in the medulla, death in cases of poisoning being due to paralysis of the respiratory centre. For the purpose of producing sleep, opium is now almost entirely replaced by such drugs as the bromides and chloral, although the ideal hypnotic, *i.e.*, a drug that will produce sleep without undue depression of the nervous centres, or other ill-effects, has yet to be found. The paralyzing action of opium is chiefly utilised in medicine to stay peristalsis of the intestines, a practice that will be referred to later on. It was formerly given in acute mania, but its use for that condition is now superseded, as already mentioned, by the hypodermic injection of hyoscyamine.

3. *Increased knowledge of the causation of disease and of pain as a symptom.*—In the first place it may be broadly stated that modern surgery, by preventing septic inflammations, has enormously lessened the amount of pain in wounds and surgical diseases. Formerly, the chief, if not the only, weapon of the physician confronted by abdominal pain, was to ply his unfortunate patient with narcotics. The one great and classical remedy for peritonitis was opium, but under modern methods the surgeon opens the abdomen and looks for a cause of the inflammation. In a similar way he invades the different cavities of the body in search of obstruction, tumours, or other sources of irritation. In the section of abdominal surgery at the late meeting of the British Medical Association, speaker after speaker denounced the use of opium. Early operation is nine-tenths of the battle in abdominal cases, and every operating surgeon can tell of patients lulled by narcotics into a sense of false security until their chances have been irretrievably lost. The chief point urged in favour of opium in the treatment of hernia, peritonitis, intestinal perforation and other painful affections of the gut, is that it paralyses the intestines. Modern surgery, however, suggests with no uncertain voice that one and all of these conditions demand



early exploratory incision, followed, where necessary, by operation. Undoubtedly, opium is a powerful remedy for the relief of pain, and is of the utmost value in such cases as the passage of renal or biliary calculi, intractable neuralgia, or the late stages of cancer. In this connection the general statement may be made that the use of narcotics in modern medicine is almost entirely palliative, and in rare cases only can be regarded as directly or indirectly curative. The old-fashioned lead and opium lotion is still extensively used by many surgeons in the treatment of various inflammatory disorders. Apart from the theoretical danger of bringing a poison like lead into contact with the body, it is extremely doubtful whether opium has any specific effect when applied to an unbroken skin, and the relief which undoubtedly follows its use in many cases is possibly due to such contributory causes as warmth and moisture.

Another important aspect of the question remains to be considered. The physician who prescribes narcotics is dogged by the ever-present danger that his patients may acquire a craving for the drugs thus ordered. Of the prostrate and broken-down condition of the victims of these morbid habits little need be said; one has only to turn for an example to a confirmed dram drinker, with every system of his body undermined and shattered. It is a common experience that a morphia, or a chloral, habit owes its origin to the orders of a medical attendant, who has, therefore, incurred a most serious responsibility. Alcohol, as the temperance reformers have so long insisted, must be included in the list. Tobacco, although no longer a medicinal narcotic, falls within the same category, and its use is undoubtedly harmful in many cases. Then again, cannabis indica, or Indian hemp which is exclusively consumed in Eastern countries, should be mentioned as a narcotic drug, the taste for which is sometimes contracted under medical treatment. The widespread existence of these cravings, both for alcohol and for drugs, is a

reality to which any practitioner of experience can testify. It is a well-known fact in the drug trade that an immense amount of opium is consumed in country places, and while deaths from overdose are of constant occurrence in all classes of society, the restrictions placed on the sale of narcotic drugs and medicines by the chemists are practically inoperative. A short while since the journals reported a case where a country carrier was in the habit of taking one or two shillingworth of laudanum every week to an old lady whom the chemist had never even seen. As to patent medicines, everyone knows that the Government stamp allows the vendor to distribute deadly poisons broadcast among the community.

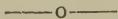
Cocaine can, perhaps, hardly be classed with the narcotics, but it has forced itself into notoriety among the acquired drug-cravings. The present writer knows an instance where cocaine was ordered in the first place by a specialist, and where the patient grew so addicted to its use that he ultimately carried about a nasal spray and indulged in frequent applications, just as some people take snuff. It is only fair to add that the patient came of a neurotic family, and was at the time of acquiring the habit much harassed by business matters. Still, the occurrence of such complications should make the physician doubly cautious before placing so subtle and deadly a weapon in the hands of weak-minded patients. It is an unfortunate fact that a good deal of prescribing is done, not so much on the merits of each particular case, as to satisfy the demands of patients and their friends. Under these circumstances a narcotic is a very convenient thing to prescribe, inasmuch as it does no immediate harm, and often makes the patient feel a little better. As a general rule, however, a medical man will do well not to order narcotics except when absolutely necessary, and in that event to see that they are not continued a moment longer than required. In acute cases one is always tempted to relieve pain by any means immediately at hand. To narcotise the nerve



centres, however, and to leave untouched the actual source of the trouble is an unscientific and illogical proceeding. An instance of the kind was brought under the writer's notice a short while since, where a medical man injected half a grain of morphia into the arm of a patient who was afflicted with a raging toothache. As a matter of fact, the patient happened to have an idiosyncrasy against opium, and nearly died in consequence of its administration, while the tooth had to come out later on. This case affords an exaggerated instance of what often occurs when drugs are resorted to in place of operation. The writer lately saw an abdomen opened for a "puerperal" peritonitis, and a ruptured pyo-salpinx was discovered and removed. That patient has made a good recovery, whereas not so many years ago the only course open to the

physician would have been to dose the patient with narcotics in order to lessen sufferings that could have but one termination. In the old days, not to put too fine a point on the matter, the patient often died of peritonitis *plus* opium.

To sum up, it may be claimed that narcotics are being looked on with growing disfavour by medical men. This disuse may be traced (1) to a more extended knowledge of existing drugs, together with the discovery of new ones; and (2) to a better understanding of the causes and conditions of disease. Great caution is needed on the part of the physician lest his prescriptions lead to the formation of disastrous habits among his patients. Lastly, more stringent restrictions should be placed on the public sale of narcotic drugs and medicines.—*Hospital Gazette*, August 1, 1891.



## THE "MORPHIA HABIT" IN FRANCE.

(From a Paris Correspondent.)

IN two or three cases of recent occurrence, the attention of the French public has been drawn to a growing evil, with whose serious proportions French medical men have for some time past been well acquainted. The latest of these cases is that of M. Gennevraye, arrested a short time ago on a charge of shocking brutality towards his wife and child. Examined by the specialists Drs. Paul Garnier and Mottet, M. Gennevraye has been pronounced "in an unsound condition of health, caused by morphia poisoning—a condition of health which, at the periods of paroxysm, was characterised by impulses of a dangerous nature imperfectly perceived by himself." The same authorities, reporting against the relegation of their patient to an asylum for the insane, have confined themselves to an insistence upon careful supervision by his family and friends from the moment of his liberation; and the magistrate instructed to conduct the original inquiry is expected to hold the prisoner irrespon-

sible for his acts and to dismiss the charge. Evidence adduced in the course of the inquiry has shown that the prisoner was suffering from an attack brought on by the abuse of morphia at the time he broke his child's leg. M. Gennevraye, who is a man of independent means, has devoted himself to musical composition, and has earned some credit here for works performed at instrumental concerts. The family propose to lodge him in a private asylum at Suresnes; but the state of his wife has latterly seemed to indicate the necessity of similar precautions in her own case. M. Gennevraye had induced his wife to submit to the same habit; and the sudden deprivation of the morphia *piqure* threw Madame Gennevraye into a mental and physical disorder apparently threatening her reason. She is much the junior of the two. Her indulgence in the morphia habit had risen to as many as twenty subcutaneous injections per day.

The prosecution of Vladimiroff for

the murder of Madame Dida formed an illustration of the same evil. In the full accounts of the case published by the morning and evening journals, the public read that the adventurer, who has gone to penal servitude merely, instead of to the guillotine, systematically debauched the young, attractive, and wealthy widow, Madame Dida, to the intoxication by morphia, with the sole aim of rendering himself the master of her will and of imposing himself upon her as her husband. In the last week of November occurred the abduction of the young lady who was declared by her brother and parents to be wrongfully detained at the Villejuif Lunatic Asylum. Among the "revelations" called forth by that incident, we heard of perhaps half a dozen incarcerated heroines who had been dispossessed of their fortunes by guardians or uncles, and then consigned to mad-houses. Investigated—for names were cited—these instances of villainy turned out to be apocryphal, if the certificates of responsible personages were deserving of any faith; but the popular imagination was immediately struck by the rôle which drug-intoxication appeared to be playing in middle-class society. What were these *folles*? Less often by far religious maniacs than in England. They were largely victims to emotional shock, to the morphia habit, and to ether. The alleged wrongful detention of a young girl at the Rue Monge establishment engaged the notice of five medical men, by whom the patient was seen alone, on different occasions separately. A report forthcoming from these gentlemen states, firstly, that her fortune has not been *dérobée*; secondly that she cannot be liberated from the asylum with safety to herself and to those around her; thirdly, that her mental derangement has been due to ether-drinking. "*A Paris*"—remarks an inquirer, who, like the Municipal Councillors, went to the Villejuif Institution and interrogated Dr. Briand—"the families which have certain of their members *en traitement* are numerous."

To hear in ordinary conversation

that particular persons prominently before the public are *morphinomanes* has become by no means an uncommon experience. Allowing for the exaggerations of gossip, there still seems to be something ill-omened in the general familiarity with the idea. But actual cases of the morphia habit fall within one's personal observation. I know of a business man, resident here, who "keeps himself up," as he says, by a hypodermic injection of the drug, "not too frequently repeated," and who, up to the present, *s'en trouve bien*, his appetite failing him totally about once a fortnight, but no other distressing symptom having yet set in! A French novelist of wide renown is currently reported to be an immoderate morphia consumer. The practice, if the rumour be well founded, forms his refuge against terrible neuralgic attacks; but I remember hearing from an English resident, six or seven years ago, that chloral was the drug to which the writer in question was addicted, my informant adding, "My own chemist supplies him: I take such-and-such a quantity myself, and the quantity he takes is—" so much, more or less, as it happened to be. Madame Jeanne Andrée, well known at one time amongst the most successful actresses of Paris, and conspicuous for her *liaison* with a financier who was at the same time a baron of unimpeachable lineage, had become a violent maniac when admitted to the Asile Sainte-Anne. When shown over that institution, I saw her there shortly before her death, and was informed that her mental collapse had been due to *morphinomanie*. Of a Parisian actress greatly in vogue during the past few years, I was told by a chemist here, "She sends her maid to us regularly with her morphia prescription."

Dr. Luys, of the Charité, lecturing to the class on "*Maladies mentales*," at the St. Anne Asylum, has pointed out a fresh variety of drug intoxication—the *cocaine-morphinomanie*. From the proofs of his address I take this appalling passage:—"I have often spoken to you of the morphia habit, which, as you are aware, has formed

one of the most important subjects of our studies. I desire now to speak to you about a poison much more dangerous than morphia, although less familiar in its effects; it is of cocaine, and of the mental condition known as *cocainomanie*, that I wish to talk to the students to-day. Certainly the poisonous effects of cocaine, administered *à dose massive*, are perfectly well known. We know that cocaine is a poison acting especially on the heart. But what hinders us from a thorough acquaintance with the cocaine habit is that *en pratique*, it is hardly ever present alone. All the tributaries of cocaine have previously paid their tribute to morphia. They are *morphino-cocainomanes*; and it is precisely an individual of this category whose case I shall now explain to you, and who, by a fortunate hazard, entered the hospital just a month ago. He came to us in a brief interval of lucidity. His case belongs to the class of auditory hallucination; he heard voices, and they insulted, persecuted, and threatened him. A common type is that of the visual hallucination. Heimann, of Berlin, quotes the case of a medical man who was addicted to the cocaine habit, and who saw strange animals covering the whole of his body. He amused himself by examining his hallucinations through the microscope; I don't know, *par exemple*, what he observed." The patient exhibited by Dr. Luys was a man thirty-two years of age, who had been treated with morphia injections for an obstinate sciatica. The remedy proved efficacious, but a couple of years later, when in a state of physical prostration, the invalid resorted to the drug of his own accord. From May, 1888, dated an enslavement to the morphia habit, the subject procuring the "moral and physical pleasure with which *la morphine* provides its *habitués*." Until October, 1889, the intellectual faculty had always been stimulated by the employment of the drug, and the general health remained good. In that month, however, a severe dental neuralgia drove the patient to the use of cocaine, under professional advice as a local anæsthetic.

The pain disappeared immediately, and, delighted at the "sensation of immense comfort which pervaded his frame," the patient paid no heed to subsequent effects, such as profuse cold perspiration and violent palpitations of the heart. At the end of four or five weeks, the sensation of comfort could no longer be produced, even with maximum doses. An incessant restlessness now made its appearance, coupled with an inexhaustible capacity for mental work. In March of last year, obliged to devote himself to researches involving considerable erudition, he earned the thanks of a Government department for the rapidity with which he completed his task. The first warning of the collapse came to him in the shape of failing sight, and a lessened power of sustaining the attention. Imaginary noises, followed by the delusion that he was suspected of theft, or of immorality, led up to the eventual sufferings noted at the time of his admission to the hospital. The stimulating effects of cocaine being of much shorter duration than those of morphia, the tendency is much greater to multiply the injections and to increase the dose. To the organic influences of their *poison d'habitude*, says Dr. Guys, the victims of cocaine succumb with great rapidity. Prior to the final cachexy, they fall into a state of voluble delirium. "Their writings never wind up; their private correspondence is left unfinished; their narratives and speeches are inexhaustible, and without due connection. This is the consequence of their cerebral excitement, and of an intellectual feebleness which supervenes. They become cadaverous and wasted, notwithstanding the abundant food which often they force themselves to take." Dr. Séglas reported a case at the Rouen Congress, in which the patient, addicted to the abuse of both cocaine and morphia, had been held up to reprobation as an example of alcoholic inebriation. The repute thus conferred upon him enabled him to conceal his real indulgences, which consisted of morphia and cocaine injections to the extent of two grammes each per day.

Alcohol he never touched. In a small work on the treatment of "*Morphinomanie par la Suppression Brusque*," just published, Dr. Benjamin Deering declares, with Levinstein and Lutaud, that the wisest, if the harshest, method

of dealing with the morphia habit is to deny the drug immediately and altogether, instead of reducing its consumption by degrees.—*Morning Advertiser*.



### A SWISS HOME FOR INEBRIATES.

It was with more than ordinary pleasure that I accepted the invitation to accompany Dr. Forel to the Home for Inebriates at Ellikon a. d. Thur, of which he was the chief promoter, for this was one of the direct fruits of the Congress held at Zurich in 1887.

On December 17th we started soon after 6 a.m. in order to catch the seven o'clock train from Zurich. At half-past nine we reached our destination—a large, pleasant house in the country, half an hour's walk from the railway station, Islikon, near Frauenfeld. Here we were welcomed by the "*hausvater*," and we proceeded to inspect the building. This was rather in disorder, for it has already been found necessary to add a wing, and the carpenters and masons were still busy completing the interior. When it is finished there will be room for forty or forty-five patients instead of twenty-three as at present. We then went into the new outhouses and found six cows and three young calves, besides fowls, &c. The cows are kept not only on account of their milk, but it is very usual in Switzerland to employ cows in agricultural labour, so that these are used instead of horses. This is economical, and one manservant can manage the stable, and two maidservants the housework with the help of the patients, who, under direction of the house-father and his wife, are not only expected to work according to their ability, as a part of the cure, but who are generally very pleased to render any assistance possible. This creates and cements the home feeling, which it is intended to inculcate, and helps them to understand that as members of one family each must help the others, and also, that regular bodily occupation is one of the best cures for

a diseased mind and a diseased body, which follow as the results of inebriety. There are several acres of land attached to the premises, the cultivation of which forms healthful occupation for the men during the greater part of the year, and sometimes it is found advisable to hire more ground in order to give sufficient employment. When the frost and snow come, and the ground is hard, then the patients are employed indoors in various useful industries, such as mat-making, carpentering, painting, shoemaking, &c. The women help with the cooking, laundry, and other household work.

The first patient was received on January 3rd, 1889. During that year forty-one patients were received, three of whom were women, and twenty-four left the home, including two women. In 1890, thirty-eight were admitted, including two women, and thirty-six left, of whom two were women. Before entering, an agreement is signed and payment made for at least three months, and sometimes for a year.

Many of the patients have entered of their own accord, but many have been placed there by the Government under medical warrant, as being unfit to take care of themselves, as in the case of lunatics. Of these the canton of St. Gall has sent the greater proportion, for a law was passed in that canton last year, under which any person rendering himself dangerous or obnoxious through intemperance, either to his family or the community, may, with a doctor's certificate, be forced to enter such an inebriate asylum, and be paid for either by his friends or from the poor fund.

There is no barricade of any kind



to prevent the patients leaving the grounds, but as they are not allowed to have any money in their possession they could not go very far without being found out, and then they would only be sent back, or punished in some other way, and they soon feel that it is for their own interest to settle down to the ways of the house, where they soon learn to feel at home when they find that they are treated as friends and not as prisoners. The usual payment required is from 1·70 fcs. to 2·00 fcs. per day, while the poor in the canton of Zurich pay only 1·10 fcs. One franc per day extra is paid for a separate room, and foreigners are charged at higher rates, as the Home is specially intended for the benefit of the Swiss people. All take their meals together and have the same food, which is good and plentiful. The chief rule of the house is total abstinence, no alcoholic drink of any kind being allowed on the premises, unless it might be in a case of severe illness, when the doctor thought it necessary. In such case it shall only be administered by the house-father, and only in such quantity as prescribed. It is endeavoured to make the patients understand that life-long total abstinence is for them an absolute necessity. Most of them sign such a pledge before leaving. Family worship is conducted morning and evening, and on Sunday morning all attend the village church, and in the afternoon the house-father (who was formerly the much respected president of a section of the Blue Cross Society, near Zurich) conducts a temperance meeting in the house, at which the villagers are also welcome.

The committee of management consists of seven gentlemen. Dr. Forel, director of the large cantonal lunatic asylum of Zurich, is the president, and he, with Dr. Bleuler, director of the lunatic asylum at Rheinau, are the two visiting physicians. No medical man resides on the premises, but these two doctors visit the Home at least once a month, and are responsible for the treatment of the patients, except in case of any ordinary bodily sickness, a doctor from the neighbouring village

is called in. The house-father sends in a monthly report of the well-being of the patients, fresh arrivals, or departures, and anything of interest concerning the house or its inmates. He must also render an exact statement of all moneys received or expended.

The asylum is supported partly by voluntary contributions and partly by a portion of the profits derived from the Government monopoly of the sale of brandy. It was at first very difficult to obtain the necessary help for this asylum, although people contribute willingly and freely towards a lunatic asylum.

One fact to which Dr. Forel has drawn my attention is worthy of notice, namely, that several cases of delirium tremens have occurred where *only cyder* has been drunk, and that in over 50 per cent. of the cases admitted *nothing stronger than wine or beer* has been taken.

The institution is too much in its infancy to be able to point to great results; but, as far as it is possible to judge, these compare very favourably with other similar establishments. Correspondence has been kept up with all the patients, or their friends, after they have left the home, and up to the present the number of those who have remained faithful to the pledge of total abstinence has been something over 50 per cent. Several of those who, after a period of some months, have fallen again, have, when the first outbreak was over, gone back to the home and begged to be taken in again, while others have signed the pledge again. This shows that the experience and influence of the home has not been lost. Indeed, many who were supposed to be quite lost to society are now filling useful and honourable positions as good citizens, and even as good magistrates and philanthropists.

I am sure that we all wish God-speed to this benevolent work, and hope that many such homes may be opened all over the land.

CHARLOTTE A. GRAY.

Burgholyli, Zurich.

## SOCIETY FOR THE STUDY OF INEBRIETY.

QUARTERLY MEETING, TUESDAY, JANUARY 5.

THE PROPHYLAXIS OF INHERITED  
INEBRIETY.

DR. CHARLES HARE presided in the absence of Dr. Norman Kerr (to whose indisposition the Chairman made feeling allusion).

A paper was read by Dr. James Ste art, of "Dunmurry," Clifton, who said they could not too often as scientific men protest against the use of the words drunkenness and inebriety as if they were convertible terms. M. Trélat had put the difference very clearly thus: "Drunkards are people who drink when they find any opportunities of drinking. Dipso-maniacs are diseased persons who get drunk whenever their attack seizes them." The drunkard (continued the lecturer), if he pursues his vicious course may so injure his brain structurally or functionally that he will eventually become an inebriate. The inebriate, on the other hand, is an individual who in most cases is born with an unsound brain. He may even be a man who has never as much as tasted any alcoholic drink in his life. True the disease may be acquired, but the experience of fifteen years had taught him that the neurosis was in most cases an inherited one. The neurosis often led the sufferer to seek relief by the narcotism of alcohol, and so cause and effect were greatly mixed up. Admitting, as they all must, that it was a transmissible cachexia, the question arises how best to prevent the germs of the inherited disease from being developed? Dr. Joseph Parrish had said "Inebriety might descend as inebriety, but it was just as likely to change the form of its appearance into insanity or other allied manifestation." Bearing this in mind it was important that the child of an inebriate should be kept free from what might upset the nervous equilibrium, care being specially taken that the surroundings during early years were bright, and calculated to develop the higher and nobler characteristics of the individual. He deprecated,

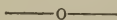
especially, corporal punishment at the hands of strangers. He advised the mother, if her husband had been an inebriate at the time of her child-bearing, to not only bring up her children absolutely as total abstainers, but (by telling them after puberty of their terrible inheritance) to warn them against ever touching alcoholic drink all their lives. The neglect to give this warning, the keeping back of this knowledge, had in some cases treated at Dunmurry caused reproaches to be uttered against the mother for omitting to perform a duty to her child out of a desire to shield the memory of her husband. But if this duty was imperative in the case of a son, how much more so in the case of a daughter if either parent had suffered from the disease? If she is to marry she ought to be warned as to the danger of marrying any one whose family history was tainted with a neurotic inheritance—a danger enormously increased if she should marry a first cousin. The lecturer concluded by the following summary of his views:—(1) Drunkenness is a vice, inebriety a disease. The two terms must not be confounded. (2) The disease of inebriety once established may be transmitted to the patient's offspring either in the form of the alcoholic diathesis, epilepsy, chorea, insanity, or even tendency to crime. (3) The child of an inebriate born after the functional or structural lesion has been established is sure to inherit some nervous diathesis. (4) The only security against this diathesis developing as inebriety is by life-long total abstinence on the part of the child. (5) Even the adoption of this precaution will not absolutely make certain that there will be no transmission of the cachexia by the child to his or her own offspring. (6). To prevent the development of the alcoholic neurosis in other directions—such as epilepsy—sudden excitement of the emotions and sensibilities (such as might be produced by corporal punishment at the hands of

strangers) should in all cases be guarded against. (7) In the prophylaxis of inebriety the principle to be acted on with regard to children's training is that if you accentuate the good you attenuate the evil. (8) The marriage of the child or even grandchild of an inebriate to a first cousin should be absolutely interdicted.

The Chairman, in proposing a vote of thanks to Dr. Stewart for his exceedingly practical paper, enlarged upon the iniquity of the marriage of first cousins, especially when there was an alcoholic taint.

Mr. Jabez Hogg seconded the vote of thanks, and said he was glad to find that the reader of the paper viewed the question from the scientific standpoint, and without emphasising any opinions he might entertain in regard to the general question of total abstinence, there being many members of the Society who, like himself, were not total abstainers.

Several speakers, including Mr. Joseph Smith, having given instances of the evil results of the intermarriage of first cousins, the proceedings terminated.—*Medical Press*.



## THE LONDON TEMPERANCE HOSPITAL.

THE annual meeting of the governors of this institution was held in one of the rooms of the Hospital in Hampstead Road, on Thursday 3rd March, under the presidency of Mr. Thomas Cash, Chairman of the Board. There was a numerous attendance.

After some preliminary business,

Mr. E. WILSON TAYLOR, secretary, read the annual report, from which we learn that the in-patients during 1891 numbered 751, being two fewer than in 1890, but the average weekly number under treatment was 62, as compared with 56 in the former year. The cases cured were 386; relieved, 230; unrelieved, 84; and the deaths were 51, being at the rate of 6.79 per cent. From the opening of the hospital (Oct. 3rd, 1873, to Dec. 31st, 1891), the in-patients have been 7,647; of whom 3,977 were cured. The deaths were 479, or 6.26 per cent. Of the total number 3,988 were abstainers. The out-patients in 1891 were 3,251, being 31 fewer than in 1890; but as during nine and a half months of 1891, the out-patients were seen on four week days only, as compared with five in 1890, the attendance of out-patients may be considered as having relatively increased rather than diminished. From the commencement, the out-patients have numbered 39,535. The casualties in 1891 were 2,211, com-

pared with 1,752 in 1890. The expenditure of the year had been slightly increased, and the Board appealed for an increase in annual subscriptions. The grants from the Sunday and Saturday Hospital Funds had been considerably increased, a testimony "to the management and beneficial work of the hospital from wholly unbiassed quarters."

The medical report of Dr. W. J. Collins attached to the annual report gives particulars of three exceptional surgical cases in which alcohol was administered. Two of the cases had a fatal issue, and the other recovered.

We give in full the following paragraph relating to the retirement of Dr. Edmunds:—

"The resignation of Dr. Edmunds, which will shortly take effect, has rendered it necessary for the Board to make such arrangements as may continue to the institution the benefit of adequate professional ability and experience. The existence and history of the hospital have been a witness and record of the zeal and labours of Dr. Edmunds. As a physician to the British Lying-in Hospital he had introduced the non-alcoholic treatment there with remarkable advantage in the year 1863; and therefore the proposal to establish a general hospital upon the same principle found in him

a cordial advocate, and he was the first chairman of the Provisional Committee appointed to provide for it a local habitation and the necessary funds. When it was determined to substitute for the house in Gower Street a range of buildings on a freehold site in the Hampstead Road, Dr. Edmunds acted as chairman of the Building Committee appointed to design plans for the new hospital, and to work out in detail the plans for the immediate erection of the east wing and central offices; and many of the most valuable arrangements for health and comfort embodied in the architect's plans were the result of his thoughtful and judicious suggestion. To his sympathy, influence, counsel, and skill we have been exceedingly indebted; and you will rejoice to know that he will continue to be associated with us as a consulting physician. We are no less certain that you will adopt the recommendation which will be submitted, to elect him an honorary life governor, in recognition of a devotion the value of which cannot be measured by the mere duration of professional service."

The Treasurer, Mr. John Hughes, being absent on account of illness, the financial statement, showing a total expenditure of £8,248 12s. 10d. (less balance £72 12s. 11d.), was read by the Chairman, who moved its adoption along with the annual report. Then followed a long discussion upon two points:—(1) The unfortunate death of a female patient who, in a fit of delirium, took a dose of sulphuric acid which proved fatal; and (2) a rumour to the effect that alcohol had been frequently prescribed in the hospital contrary to the rules.

In regard to the first point it was explained that, in accordance with a practice almost universally prevalent in hospitals, a certain number of poisonous drugs, generally used as tests when patients were undergoing examination by doctors and nurses, had for years been kept in each ward so as to be at hand when required, but since the lamentable occurrence referred to, these drugs had been placed under lock and key. The

officials were severely questioned as to the person or persons who were to blame for the poor woman's death, but no one seemed able to solve the mystery. It was stated, however, that the coroner who inquired into the cause of death had exonerated the hospital officials from all blame.

The misapprehension regarding the alleged use of alcohol in the hospital appears to have arisen from ignorance of the fact that all the tinctures used in the hospital were free from alcohol. Letters to that effect were read from Messrs. Corbyn and others who prepared the tinctures, and Drs. Edmunds, Ridge, and Collins severally declared that they had never prescribed alcohol for any patients or out-patients except in the very few exceptional cases which had been specially reported upon.

After an hour and a half had been spent in discussing these matters, the adoption of the report was agreed to almost unanimously; office-bearers were appointed; and on the recommendation of the Board to confer the honour of a life-governorship upon Dr. Edmunds being cordially passed, it was acknowledged in graceful terms by Dr. Edmunds. A well-deserved vote of thanks to Mr. Cash for presiding, brought the proceedings to a close.

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The *Temperance Record* (March 24), states that the directors of the Temperance Hospital have been fortunate enough to secure the invaluable co-operation of Dr. B. W. Richardson, F.R.S., who has consented to occupy the post of senior physician which was rendered vacant by the retirement of Dr. Edmunds; and the new assistant-physician will be Dr. J. Fletcher Little, M.B.Camb., M.R.C.P.Lond., who, with Dr. J. J. Ridge as physician and Dr. W. J. Collins as surgeon, and the new senior physician, will constitute a powerful staff. Dr. Fletcher Little has been twenty-five years in the profession, and holds several important appointments, including one in connection with the North London Consumption Hospital.



## ETHER AS A STIMULANT AT THE TEMPERANCE HOSPITAL.

A CORRESPONDENT of a contemporary expresses surprise that at a public meeting at the Temperance Hospital it was announced that the internal use of ether is allowed in the hospital in place of alcohol. We cannot think that there is much to justify this difference. Ether-drinking is a vice which has but lately in Ireland assumed grave proportions, requiring special legislature. It is affectation to regard the use of such an agent as morally or physically better than the use of approved forms of alcohol. By all means let the physicians of the Temperance Hospital cure disease—where they can do so equally well and equally quickly—without alcohol. Such treatment is instructive, but where some form of diffusible stimulant is needed, to prefer ether to alcohol is scarcely the way to promote temperance.—*Lancet*, March 12.

(To the Editors of the "*Lancet*,")

SIRS,—With regard to your homily to the staff of the Temperance Hospital, it would be well if you had made sure of your facts first. The anonymous correspondent has misled you. Nearly all the ether used therein has been used for anæsthetic purposes; a small quantity has been used externally, and a very little has been administered subcutaneously in rare emergencies. I am not aware that any has been used internally, and for the very good reason that ether is only soluble in alcohol, and there is not a drop of spiritus ætheris on the premises. So much for the mare's nest. But your article shows a complete mis-apprehension of the object of the Temperance Hospital. It is admitted that some people (probably many) have acquired a craving for drink through having been ordered to take some common form of alcoholic beverage; it is also a fact that some reformed drunkards have had their desire for alcohol re-awakened through being ordered beer, wine, or spirits during illness; and it is notorious that

a large number of people think that some form of alcoholic liquor is absolutely necessary for the cure of most diseases, exceedingly useful in nearly all the rest, and especially valuable during convalescence as a tonic and "strengthening" agent. It is also thought that a remedy which is so valuable to cure disease must be equally useful to ward it off. Alcoholic liquors are still largely recommended and relied on by a great many medical men, and were still more when the Temperance Hospital was first established. Its object, then, is to show that the ordinary use of alcohol is totally unnecessary, and thus to check the spread of the alcohol habit. But we can avoid, and have avoided, that. It would be equally absurd to reject ether because some have taken excess in the north of Ireland as to abandon the medicinal use of opium because opium is a common curse in China. If I were practising among ether or opium drunkards I should avoid the use of these medicines as much as possible. If alcohol had never been taken save in medicine, and had only been dispensed as a drug, there would have been no great drink question urgently demanding solution. Such a use of alcohol would be harmless, but at the Temperance Hospital we have shown that even when alcohol might be useful it is possible to employ something else. Our experience proves that its value is grossly exaggerated, and that its total disuse would not render the cure of disease more difficult. You are also probably aware that the special legislation which has put an end to ether drinking in Ireland is an order scheduling ether as a poison, only to be procured as other poisons are. We shall be quite content when alcohol, which has done infinitely more harm than ether, is treated in the same way.

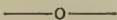
I am, Sirs, yours truly,

J. J. RIDGE, M.D. Lond.,  
Physician to the London  
Temperance Hospital.

March 12th, 1892.

It will be seen that Dr. Ridge, in a letter which we print in another column, refutes the statements of the correspondent of a contemporary (the *Echo*) that ether is used at the Temperance Hospital instead of alcohol. We are much pleased to insert Dr. Ridge's letter, and not sorry that our allusion (which he calls a homily) to the subject has brought forth his reply. Whether our short notice of a serious public statement be a homily or not, his rejoinder certainly partakes of that character, if not of that of an actual sermon. We shall not follow him

into all the various medical aspects of the alcohol question. He should know that the *Lancet* is not insensible to the responsibility of practitioners who prescribe alcohol, or who give medical sanction to its use. It is a very frequent theme in these columns. We are not prepared to argue that alcohol, like ether in Ireland, should be scheduled as a poison. But we look confidently to the profession to sharply define its medical and dietetic uses, and by such definition to assist in the abatement of our greatest national vice.—*Lancet*, March 19.



## ALCOHOLISM AND TUBERCULOSIS.

By HECTOR W. G. MACKENZIE, M.A., M.D.,

*Assistant-Physician to the Brompton Hospital for Consumption, &c.*

FROM the histories given by patients, and from the evidence afforded by post-mortem examinations, the conclusion has been forced upon me that tubercle is more common among the alcoholic than is generally believed. I have collected from the post-mortem records of St. Thomas's Hospital for the past thirteen years 75 fatal cases of tuberculosis in which there was a strong history of alcoholism; in only 10 of these was there any history of phthisis in the family; in 46, or in over 60 per cent., the liver was cirrhotic. These cases by no means include all the intemperate who died with tubercle. In a considerable additional number of other cases of tuberculosis there was a strong suspicion of alcoholism. All doubtful cases, however, have been purposely omitted. In 4 cases tubercle affected the peritoneum alone, in 1 case the pleura alone, and in three cases the peritoneum and pleura alone. In the remaining 67 cases the lungs were affected; in 47 of the latter there were vomicae; in many of these the vomicae were small and multiple, it being rather the exception to find a case of considerable excavation. In 29 there was broncho-pneumonic consolidation; in 12 there was increase of connective tissue; in 43 there was

grey tubercle present; in 19 there was caseous tubercle, the two varieties being both present in 11 cases. There was also tuberculous ulceration of the intestines in 21, of the larynx in 13, tubercle of the pleura in 5, tubercle of the peritoneum in 12, of the meninges in 5, of the kidneys in 8, of the spleen in 4.

It may be concluded from these facts that the commoner type of alcoholic phthisis is a combination of excavation with broncho-pneumonic consolidation, and that there is usually a considerable deposit of grey tubercle present in the lung. The fibroid change is the rarer form, occurring in only 12 out of 67 cases. In a large proportion there was tubercle present in other organs. The peritoneum was affected in a total of 19 cases. Fifty-nine of the cases were males, 16 were females, a ratio of about 4 to 1.

As regards the ages of these patients, they were in 12 cases over 20 years of age and under 30, 25 cases over 30 and under 40, 25 cases over 40 and under 50, 7 cases between 50 and 60, and 5 between 60 and 70. In the remaining case the age was 73. The reason for the number of cases being greater in middle life than in early adult life is probably because alco-

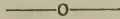
holism is more frequent at that period than at an earlier one, and also because the longer the habit is indulged in the more susceptible the patient becomes.

The duration of symptoms in the 29 cases uncomplicated with cirrhosis was doubtful in 13, six months or less in 13, sixteen months, eighteen, months, and three years respectively in the remainder, giving an average duration much below the average.

My experience among out-patients at the Brompton Hospital is that a considerable proportion of the phthisical—especially of the men—have been alcoholic, and I should say that a history of alcoholism is a very common antecedent in those cases where there is no inherited susceptibility to tubercle. As regards women, it is impossible to say to what extent alcohol is responsible for the disease, it being very uncommon for a woman to own to alcoholic habits.

In alcoholic cases the condition of the patient is generally worse than would be expected from the amount of disease revealed by physical examination. It is therefore specially important in such cases, when there are any chest symptoms, to examine the sputum for bacilli. By this means I have been able to make an early diagnosis of phthisis when the examination of the chest was negative. In alcoholic cases I have found that the progress of the disease, as a rule, is rapid, and the prognosis particularly unfavourably.

The belief that, as regards people of any age, alcoholic drinks in excess act as a preventive of tubercle I consider not only not borne out by experience, but altogether contrary to it. Without post-mortem examinations conclusions as to the absence of tubercle are fallacious and of no practical value. — *British Medical Journal*.



## ALCOHOL IN GROWING PLANTS.

THE Rev. William M<sup>r</sup> Knight, of Markethill, calls our attention to an article in the current edition of "Chambers's Encyclopædia," in which, he has been assured by a brother-clergyman, it is stated that "alcohol is found in nature in several plants, the fruit of the parsnip being among them." He "thought that alcohol was in every case the result of fermentation," and asks us to express our opinion, or quote some authorities, regarding this alleged source of it, and so not only oblige him but many of our readers.

The statement in the article alluded to is as follows:—"Alcohol occurs in nature in several growing plants, and must therefore be regarded as an occasional constituent of plant-juices which have not undergone fermentation. It has been found in the fruit and pedicels of *Heracleum giganteum*, the fruit of the parsnip, and the unripe fruit of *Anthriscus cerefolium*." With regard to this statement, we have to say (1) that it is anonymous, and is

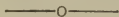
unaccompanied by any information as to the authority on which it is made, or the facts on which it is based. We are not told when, how, under what circumstances, or by whom, the alleged discovery of alcohol in the plants named was made, or whether it has been tested and verified by other chemists. (2) The form of the statement excites our doubts. It is said that "alcohol occurs in nature in several growing plants." Most readers would understand this to mean that alcohol "occurs" regularly and always in the plants referred to as a constant and normal constituent. But, then, why say that "it must *therefore* be regarded as an *occasional* constituent of several plant-juices?" The laxness of this language makes us suspect its scientific accuracy. (3) The very rarity and limitation of this alleged occurrence of alcohol as a natural product of growing plants makes us doubt its reality, and incline us to the supposition of a possible mistake or fallacy in

the experiments. The writer of the article admits that, "for practical purposes, there is only one source of alcohol—namely, the fermentation of sugar or other saccharine matter." It seems to be unknown to distillers that they could get it ready made from "the fruit of the parsnip"! (4) Even if alcohol do "occasionally" occur in growing plants, the fact may be regarded as analogous to those anomalous and abnormal occurrences known as *lusus naturæ*, or may, after all, be the result of fermentation that has been accidentally set up. (5) It strikes us as very questionable that that which is a well-known artificial product of the disintegration and decay of dead vegetable matter by the action of a putrefactive ferment can be also a natural product of the growth and development of living vegetable matter. (6) There are many alcohols, and they resemble each other in their chemical reactions. That of intoxicating beverages is ethylic alcohol, and it is of this variety that temperance advocates have been accustomed to say that it does not occur as a product of nature. There is no proof in the article we have quoted, nor is it even stated in it, that this particular alcohol is ever found in "plant-juices which have not undergone fermentation." If any alcohol be ever found there, it may be some other kind with which neither abstainers nor drinkers have any concern, and as to the origin of which abstainers affirm nothing. (7) Even if abstainers were wrong in saying that alcohol is always a product of fermentation, their mistake would not affect in the slightest degree their only contention—that alcohol is a poison,

and is unfit to be used as a food or drink in health. The fact that strychnine is a natural constituent of the *Nux Vomica* is no argument for its use as an article of diet. (8) It is said that alcohol occurs in the *fruit* of the parsnip; but even if it did, nobody eats the fruit of the parsnip. (9) Mr. M'Knight asks us: "Is the poison of alcohol in the fresh juice of the parsnip, which is a plant in common use?" Its esculent *root* is in common use, but alcohol is not said to occur there, and even if it did the root is not used raw but boiled, and the heat of cooking would dissipate every particle of alcohol, whose boiling-point is only  $173^{\circ}$ , whereas that of water is  $212^{\circ}$ . (10) We are asked to quote some authorities regarding this alleged source of alcohol. We know of none who believe in it, much less who have demonstrated it. We think that all competent chemists regard alcohol as a product not of nature but of art, not of life but of death, not of growth but of decay, not of construction but of destruction, not of the evolution to maturity of living plant-juices but of degeneration towards rottenness of dead ones. It is, in fact, the result of the action of a ferment on grape sugar, not *in* any living vegetable, but after abstraction *from* it, or manufacture out of it. As *Punch* once said—

"To matters organic it owes its production,  
Through decomposition in states of destruction;  
From various causes of chemical action,  
Thence comes fermentation—in short  
putrefaction."

—*Irish Temperance League Journal*.



## ALCOHOL IN RELATION TO HEALTH.

By DR. PRIMROSE WELLS, M.A., *Beckenham*.

SOME years ago, about ten o'clock on a Sunday evening, I received a visit from a solicitor, who asked me to go at once a few miles into the country to see a patient he feared was very ill. He impressed upon me that I should spare no expense or trouble

to get her well, as she was the possessor of considerable property, for which others were already scheming. I shall never forget the sights and sounds of that night. On entering the sick room, I found a lady of about twenty-six years of age, in the con-

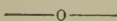


dition of a person who is consuming nearly two whole bottles of brandy in a day. Violent paroxysms of retching, the mingled cries and laughs of delirium tremens, and every few minutes the piteous pleadings for more brandy, with angry shouts and struggling if it was refused. This was the patient I was, if possible, to get well. It was an ugly job, when you consider that besides the body to be cured there was the pernicious habit to be got rid of. The treatment of the first few days was much hampered by some of those attending on the patient, who I was sorry to find were in league with the husband, and allowed this poor creature to have as much of the poison as she liked, that she might the sooner put an end to her existence. Her husband, tired of outbreaks of this sort, had himself given way to dissipation and drunkenness, and left the home, never, as he said, to enter it while she was alive; so that if it had not been for the timely appearance of the solicitor who defended her interests, all, no doubt, would have turned out as they desired.

After establishing reliable nurses about the patient, and the delirium being got under, and sleep obtained, it became necessary to build up the patient. This was a difficult and tedious matter, for the stomach refused to digest anything but the smallest quantities of liquid food. Still there was improvement and some hope, until, from the degenerate condition of the blood-vessels, the patient began to pass large quantities of blood from the kidneys. This went on for days, for the power of the system to answer to drugs was well-nigh lost. This danger past, a new one confronted me; the legs became completely paralysed, and when the general health was sufficiently restored for her to

leave her bed, she had to be tied into her chair like a baby; the arms and hands were also affected, but not so severely. For months she remained in this condition, in spite of all drugs, electricity and rubbing, until one day I thought it worth while to revert to a course of treatment that had previously failed to do her any good, when to my surprise and satisfaction she began to make improvement. In a few weeks she was able to take gentle exercise out of doors, and from that time her physical condition quickly advanced to perfect health.

But during this time the mind was not left unimpaired. It seemed at first as if the reason must depart, so feeble it became, but as health returned this much improved. But memory was gone, so much so that when she was well enough to order dinner, I would as a test ask her what was coming, and she would not be able to tell me one thing that was mentioned to the cook an hour before. When last I saw her, which was two years from the commencement of her illness, she was robust and healthy-looking, able to walk seven miles without a rest, and with the memory improving. She was, I am glad to say, still keeping, as all through her illness, a strict total abstainer. The husband had returned and done his best to give her courage and help in fighting through a weary and dangerous illness. I hope they are still as I left them. This most instructive case tells better than I can the danger of hard drinking; its delirium tremens, its dyspepsia, hæmorrhage, alcoholic paralysis, melancholia and loss of memory, all occurring, as they did, in this poor creature, show the vengeance that is demanded of those enslaved by such a habit, and entombed in such a living death.



**MISTAKEN KINDNESS.**—The injurious habit of tippling may be traced to a variety of causes. It often originates in early life, even during the days of childhood. The pernicious practice of permitting or encouraging young children to “sip a little wine” out of their father’s or mother’s glass during the hours of dinner is a mistaken act of kindness, and cannot be too highly condemned.—*Dr. L. Forbes Winslow.*

## INFLUENZA AND ITS TREATMENT.\*

By JAMES EDMUNDS, M.D., M.R.C.P. Lond.

THE following is my treatment for influenza. It is very simple, but I find that patients do better under it than under any other treatment:—

I. As to the cause of influenza, the general opinion is that it is infectious, that it is personally communicated from the sick to those who are well, and that a very short period of incubation accounts for its wide and rapid spread. I do not think this an adequate explanation. This disease may be infectious, but, if so, mere personal communication with the sick would scarcely account for its very wide dissemination and for its very rapid spread. In my opinion, some general atmospheric influence is at work, which affects groups of people, or even whole communities, so far as their individual members are susceptible to the disease. I think that the atmosphere carries about, as fine dust is carried by gusts of wind, some particles like those which produce "Hayfever," or, like those which, after the recent eruption at Krakatoa, produced the strangely-coloured sunsets and occasional blueness of the moon which were then observed for some years. There is little doubt but that during that vast volcanic explosion, fine particles of matter were projected into the higher regions of the atmosphere, there to float about for months, and, as to the most palpable particles, for years. I think that some such contamination of the atmosphere must be connected with our recent outbreaks of influenza.

II. In the management of patients affected with this disease, it is always proper that they should sleep alone, and that the room should be kept well ventilated. The best way of ventilating a sick room is to keep up a good fire in the room, while the temperature of the room is kept down to 60° or

65° by an open door leading to a passage, into which fresh pure air has direct access. Such ventilation should be kept up in every sick room. If a disease be infectious, free dilution of the infectious atmosphere is the best way of destroying the infection, and, at the same time, of relieving the patient of the emanations which he produces. It is, of course, proper that blankets and sheets which a sick person has used should be thoroughly washed before being used by any other person. Such clothing may be soaked for a few days in soft water, to which about one part in a hundred of carbolic acid has been added, and it should afterwards be boiled in fresh soft water. This treatment will securely disinfect all such clothing, and without damaging its fabric—a practical point which is of great importance to poor people. The expectoration and other excretions should be carefully got rid of.

III. The patient who is attacked will be in more danger if of feeble or unsound constitution; if of advanced age, or if damaged as to his vitality and recuperative powers by the habitual use of alcohol. Those who have been abstainers from alcoholic beverages seem to recover best.

IV. As to the medical treatment, I always begin with 30 grains of powdered ipecacuanha. This should be taken in a wineglassful of warm water, and if in ten or fifteen minutes it acts as an emetic, the patient should drink copiously and repeatedly of hot water, so as to facilitate vomiting. This simple dose does great good, and sometimes seems even to break the onset of the disease. Such a dose is perfectly safe even for children; but, with little children, 15 or even 10 grains of ipecacuanha often suffice to act as an emetic. The emetic may be repeated once or twice every day if the breathing gets obstructed by the secretion which accumulates in the bronchial tubes. In less severe cases I find that a small powder of 2 grains

\* Prepared at the request of the Rev. D. W. Sitwell, of Leamington Hastings, Rugby, and published at Leamington for the use of the sick.

of ipecacuanha, taken three times a day, acts as a safe and useful expectorant. For children, or for very mild effects, ordinary ipecacuanha lozenges, containing a quarter grain of ipecacuanha in each, may be sucked frequently as an expectorant, and these aid materially in loosening the phlegm.

Should a purgative be needed, a teaspoonful of Epsom salts, or a seidlitz powder, taken in a large draught of hot water, with a pinch of ginger, is the best thing that can be taken. This may well be taken an hour after the patient has done with the emetic. The patient is then cleared of all foul accumulations in his system, and afterwards needs little but the small doses of ipecacuanha two or three times a day, in order to lessen fever and promote expectoration. The purgative may be repeated occasionally, if necessary, and should then be taken directly on waking in the morning, and, for an adult, in a half-pint of hot water, so as to act like a dose of warm mineral water.

If the patient gets hot and feverish, I give a sixth part of the following mixture three times a day:—Citrate of potash, 2 drachms; tincture of henbane, 2 drachms; water to 6 ounces. (Children, or young people, may take from one teaspoonful to a tablespoonful of this fever mixture.)

If there be pain in the chest on drawing a deep breath, the local application of bran, wetted with hot water, and sometimes just sprinkled with a teaspoonful of turpentine, is the best and simplest remedy. The bran should be put into a cotton bag like a very small pillow-case, wetted through with quite hot water, squeezed dry, sprinkled with a few drops of turpentine, and, while comfortably hot, *but not scalding hot*, applied to the painful part of the chest, and covered over with a dry flannel. This should give great comfort. If the pain is in the back, lay the bran pillow on a hot dry towel, upon a piece of mackintosh cloth, in the bed; let the patient lie down and imbed the back of his chest upon the hot bag of bran, and then pin the ends of the towel over the front of the chest, and cover up the

clothes, so as to keep all snug and warm. Should the patient become extremely low and faint I give decoction of red cinchona (strained hot), 12 ounces; carbonate of ammonia, 60 grains: a wineglassful to be taken every four hours. If the patient dislikes the cinchona, the 60 grains of carbonate of ammonia may be dissolved in 12 ounces of water, and of this solution a wineglassful may be shaken up thoroughly in a clean phial with an equal measure of milk. This dose may be taken occasionally when faint or low.

V. As to diet, there are three stock things which should be in use in the sick room—Barley water, gruel and milk, meat tea. These should be made as follows:—

*To make Barley Water.*—Boil Robinson's patent barley flour for fifteen minutes to a thin drinkable well-cooked liquid, then sweeten with sugar or golden syrup, and acidulate with a squeeze of juice from a fresh lemon; of this the patient may drink as much as he finds agreeable. It will soothe an irritable cough, it cools feverishness, and relieves thirst, and it is refreshing and nutritive.

*To make Gruel milk.*—Boil fine oatmeal in water for thirty minutes to a smooth drinkable gruel, then add an equal measure of new milk, bring the mixture just to a boil, and then pour out into a covered jug. Of this the patient should have a good cupful every three hours. This is to be regarded as a liquid food, and it will perfectly sustain a patient who is not able to take ordinary food.

*To make Beef-tea.*—With a sharp knife mince or scrape half-a-pound of fresh lean neck-beef, put the minced beef into a covered jug, and add a little salt and half-a-pint of cold soft water. Let this stand two hours, then strain off the cold liquor, squeeze the meat, and wash out the residual juice with a final spoonful or two of cold water. Set the cold liquor aside, and put the squeezed meat into a clean saucepan, with a second half-pint of soft-water. Boil for thirty minutes, strain off the hot liquor into the cold liquor, and again squeeze the ex-

hausted meat. The tea made thus is the best and most nourishing preparation that can be got from meat. It may be taken as it is, or it may be carefully and slowly warmed until the red colour is just got rid of. It may, of course, be flavoured to the patient's taste, or may be mixed with oatmeal gruel, or with barley water, or with pieces of toast. A cupful of such beef-tea may be given three or four times a day. If stronger beef-tea be desired, more meat should be added; but, speaking generally, this is unadvisable. Beef-tea is a valuable and often appetising adjunct to sick-diet, but it must not be relied upon as a really sustaining food. For this purpose the gruel-milk, or other similar preparation such as arrowroot and milk, must be used.

Oranges, grapes, and other picked soft fresh fruit may be taken according to the patient's fancy. I do not exclude any other simple food that the patient may like, but I give no alcoholic beverages.

VI. *The Convalescence.* — As the patient recovers, quinine is useful. The best way of taking quinine is in

pills, each containing one grain of quinine. One or two of such pills may be taken three times a day for a week. For a child, the one-grain quinine pill may be cut into two or three pieces, of which one is a dose. On recovery, warm woollen under-clothing should be continuously worn over the whole body, and for some weeks great care should be taken to avoid a relapse.

The barley water, gruel-milk, and beef-tea should be made fresh for the sick-room twice a day.

I do not know any basis on which charitable help can be more usefully organised from the hall or the rectory as a centre, than that of setting a skilful, tasteful cook to make quantities of the barley-water, gruel-milk, and beef-tea as above, so that it may be fetched fresh and hot for the sick poor at 8 a.m. and 8 p.m. Critical cleanliness as to the making and storing of these foods is needed, in order that they may be in perfect condition, and may keep fresh for the twelve hours. For small quantities the earthenware saucepans, or common pipkins, are the best cooking vessels.



### THE ITCH FOR DRINKING.

WHATEVER nice limitations of meaning may be given to the word "poison," there can be no doubt that alcoholic liquors are poisonous in the sense of being deleterious to the human system. The fact that men can drink them for a time without perceptible injury by no means disproves this statement. Men may inhale sewer-gas, the exhalations of fevers, a malarial atmosphere, and many other noxious vapours, without apparent harm; but that does not prove that these things are harmless, or that, if they afforded agreeable sensations, it would be desirable or wise to breathe them. The body has a power of resistance and a power of readjustment and repair that may, for a while, prevent or conceal or remove the ill-effects of hurtful agents, but these powers are weakened in proportion to the fre-

quency and intensity of the assaults made upon them, and the damage at last becomes both felt and seen. (Even apart from the amount of damage, we have no right to tax these or any other of the powers of our constitution, except in the natural and proper work of our body and in the performance of the real duties of life.) Like all other bad habits, whether of the body or the mind, the effects of drinking require time to come to light. There can be no greater or more dangerous delusion than the notion that what is not felt or seen after drinking alcohol does not exist. The beginnings of mischief, as of everything else, are ever small and hidden, but, unless destroyed in the germ, they grow and develop and come to the surface in the long run, like the seeds of the organic world. It is one of the certainties of science



that alcohol injures tissue, deranges function, impairs health, and shortens life, however slightly or slowly it may do it, or whatever pleasant feelings it may produce in the system while doing it. We have heard a doctor of divinity deny that alcohol did him harm, because he felt the better for it. We have had the same reason given us to justify worse practices. There are other pleasant sins against our own bodies besides drinking, but they and it are none the less sins and (what some may think a more serious matter) physiological blunders because of the enjoyment that attends them.

To use what may seem a coarse but, as we believe, a scientifically correct illustration, the delicious exaltation excited by alcohol within the body is really the result of a titillation of the nerves by it analogous to the unhealthy pleasure, sometimes moderate, sometimes overpowering, caused by scratching a part affected with certain diseases of the skin. 1. The itching here, which is simply an aggravated and perverted sensibility of the nerves of the surface, may vary in intensity from slight to unbearable, just as the thrill of the nerves of the man who wants drink may vary from simple uneasiness to absolute torture. 2. The desire to rub the itching part may be mild or ungovernable, like the craving of the drinker for that which he knows will still the agitation of his tingling nerves. 3. The pleasurable content produced by scratching, that is, by irritation of the extremities of the cutaneous nerves, is similar to that caused by the disturbing contact of alcohol with the filaments within the body. 4. The tendency to "seek it yet again," to seek this relief from more or less acute discomfort by repeated resort to the same means, exists, grows, and may become fixed and permanent in the sufferer from the outward malady, just as we see it do in the bibulous victim of the inward one. 5. As scratching, however much or however pleasantly it may allay the maddening itchy pricking for the time, yet visibly injures and allays it by injuring the affected part, and, if repeated often or per-

sisted in may ulcerate and kill the tissues involved, so the irritation of the nerves with alcohol, while delightfully numbing the longing for drink, disorganises and disables them, and numbs it precisely by doing so. It is a silencing by violence and death, not by the soothing, healing processes of nature, as one might quiet a crying babe by roughly covering its mouth with the hand or smothering it with a pillow, instead of softly appeasing it with its mother's kindly breast. 6. As in the one case, each repetition of this injurious and unnatural relief makes the next paroxysm more violent (for itching grows by rubbing), and the impulse to resort to the old remedy more strong, so, in the other, the appetite "grows by what it feeds on," because every alleviation leaves the nervous seat of it more deeply injured than before. Whereas (7) if the desire to scratch be resolutely and perseveringly resisted, it will diminish and in time cease, and so will the desire to drink; because in both cases that condition of the nerves which causes the desire will be gradually changed and restored to the healthy state. 8. Lastly, as the amount of scratching required to stop the itching (if time be not given for the restoration just mentioned) increases with each renewal of it, so does the amount of alcohol necessary to satisfy the demands of the drinker's raging nerves—that is, to bring the old relief, to restore the *status quo*—increase with every bout.

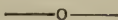
This last-mentioned fact affords conclusive proof that the progress of alcohol is a disintegrating, destructive progress from the first step to the last. Why does the desire for drink get stronger? Why does the quantity of drink needed to quell the desire get larger? If we find that it requires a more powerful electric current to excite the same degree of muscular movement in a limb to-day than it did yesterday, we conclude that the limb has lost some of its conductivity; and if we find that it takes more alcohol now than it did a year ago to produce the same degree of exhilaration, it is a sure evidence that this

poison has been sapping and mining the nervous system, exhausting and using up the nerve force, and concurrently altering and injuring the nerve substance. All this is as certain as that the nerves of the opium-eater or laudanum-drinker are not in the same condition now as before the fatal habit was begun, but have been undergoing a continuous impairment from the first dose to the last. And the injury caused by the first dose was no less real, however little it was felt or suspected, than that caused by any subsequent one, even the last. "Alcohol," says Professor Boehm, of Dorpat, in his work on poisons, contributed to Ziemssen's great "*Handbuch der Speciellen Pathologie und Therapie*," "is one of those narcotics which, after long-continued operation, leave lasting alterations in the organs—alterations which, though they are not always accessible to anatomical examination, nevertheless, by permanent anomalies of functions, give indubitable evidence of their existence. We all know that the organism becomes accustomed to the poison—in other words, that the nerve-centres become gradually insensible to quantities that originally produced marked effects. Since the poison is the same now as before, this habituation to it can only be the effect of a permanent

alteration in the vitality of the organs attacked."

Age may wither the capacity for enjoyment and custom stale the zest of pleasure, but no proper stimulus, temperately used, will dull the edge of sensibility like this. The natural stimulants of light, sound, air, water, food, conversation, social intercourse, work, duty, love, ambition, all healthy incentives to the activity of our faculties, and all legitimate gratification of the essential wants of the body and mind, tend to maintain rather than depress or disturb the normal standard of life and vigour in every organ and function—neither lessening responsiveness to old impressions nor begetting a morbid call for new ones. Alcohol, on the contrary, changes normal sensibility into a debasing and enervating passion, that sweeps the whole scale of feeling, from agony to ecstasy, alluring men on by its fascination, devouring them like a werewolf, and leaving them in their graves the victims and monuments of its terrible narcotic power. As the nails tear the flesh, so it scrapes and digs and burrows at the very foundations of the bodily organism, until the once proud and beautiful structure totters and falls, a foul and crumbling ruin.

A BELFAST PHYSICIAN.



#### SIR GEORGE M. HUMPHRY ON TEMPERANCE.

AT the annual meeting of the Cambridge Church Temperance Association, held on Thursday, 3rd March, Sir George M. Humphry, M.D., F.R.S., remarked that one of the noblest men and grandest writers who had lived, and with whose writings they were, probably, more familiar than those of any other man, said, "Everyone that striveth for the mastery is temperate in all things." Although the sentence soon received from the Apostle a much wider significance, yet it was an illustration drawn from the physical body, and had reference to the advantage which temperance gave to those who would strive in the race and the other athletic exercises which the ancients as well as the moderns were wont to

give much time and attention to. The few remarks that he would make should apply to the body almost exclusively, and he was sure they would agree that the greatest of all masteries was the mastery over oneself, was the mastery which gave them control, and he would speak of that control as exercised with regard to the body, as exercised in control over the appetite over eating and drinking, and surely it was that control more than any other that fitted a man for not only athletics, but fitted him for all good work, for all happy work, for the great enjoyment of life, which gave them a healthy, vigorous, and nimble body, that led them more than anything else to lead a vigorous and happy

existence. If they asked their acquaintances who enjoyed their bodies, and if those bodies did good work, and those acquaintances were men who had attained an old age, they would find, in the most part, they were temperate in eating, and temperate, above all, in drinking. Hence, he would not speak to them of drunkenness. They all knew full well the terrible evils of it. They knew how it degraded a man, how it degraded and spoiled his home, how it led him into all manner of crimes, how it filled their union houses, their gaols, and their lunatic asylums. They knew of that well enough, but he would say one word or two respecting the intemperance in drinking short of drunkenness, which was really more prejudicial, as doing more damage among their people, and was sapping the vitals of their nation more thoroughly and more generally than actual drunkenness. He meant that habit which was so common with taking a glass now and taking a glass then, and taking a glass again, and taking a glass in the morning, which was worst of all, taking a glass in the midday, taking a glass in the afternoon, and taking a glass in the evening, taking a glass now and taking them almost for ever. Now, it was this even more than drunkenness which was so terrible to our existence. It was this that made men so sodden, as it were rotten. Really, that was not too strong a word. They evinced it in various ways. They evinced it in general shakiness, a shakiness of hand, a shakiness of step, and, above all, a shakiness of doing; a shakiness of more important parts, a shakiness of liver, a shakiness of kidneys, and a shakiness of health, and they evinced it in a manner which entirely unfitted them for the work they had to do. Now, such persons said, "I am never the worse for drink." The fact was, they were always the worse for drink, morning, noon, and night. They said, "My work is hard," and they took the very means which unfitted them for good and prolonged work. They said, "Drink is never doing me any harm." It was always doing them harm. It sapped the very

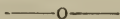
foundations of their life, and not only of their life, but of their energy, of their thought, and of their higher qualities. They found such persons hardly ever had a thorough enjoyment of health, and it was all through the terrible habit of nipping now and then. It took away all the cleanliness and pureness and happiness from the body. He would tell them what he meant by temperance in drinking. He meant this: That there should be nothing whatever, under no conditions at all, taken except at meals; never. Never give way to that feeling of languor or lassitude when tempted to drink, and which simply, if indulged in, increased and reproduced that feeling. Never yield to the feeling of thirst. That thirst was simply a result of drink. If they did not drink water they would not be thirsty, and still less if they did not drink beer, except at meals—a glass or two at dinner, and a glass or two after dinner. Nothing was more deleterious to the body, and was more deleterious to the mind altogether. People were going on strike. There were strikes now about coal in the north, and coal had gone up greatly, as he found out that day, very heavily in price. He wished that men would strike in that respect against intemperance. If they would but strike against that terrible soaking, nipping tendency, if they would strike against the beer-shops, and if they would strike against intemperance they would be doing that which did far more good than they were likely to attain by striking against their masters. They would then be far better, have far more life, far more pleasure, and their homes would be far more happy. Continuing, Sir George related an incident which bore out fully his remarks, and also remarked that if persons could not be content with moderation in temperance they would find themselves led from the one point to another in intemperance, and he advised them to give it up altogether. Let them become total abstainers, and support to the utmost the cause of total abstinence, which was to be recommended to all persons who could not keep themselves temperate.



## DRUNKENNESS AND THE SUFFOCATION OF CHILDREN.

FROM the Registrar-General's report for the year 1890, we learn that the deaths ascribed to some or other form of violence numbered 18,770, or 653 per million living, a ratio somewhat in excess of the average in the previous five years. This seems a large number, but it includes 1,544 infants suffocated in bed, and in connection with this latter subject it is curious to note that the proportion of deaths of infants from overlying is more than twice as high on Saturday night as on any other night in the week. The next highest proportion is on Monday night, and after this on Sunday. Through Tuesday, Wednesday, and Thursday nights there is a gradual decline, followed by a slight but distinct rise in the proportion on Friday night. The explanation of these differences given is the amount of intoxication indulged in by the parents on different days of the week. Satur-

day afternoon is the most general holiday and pay-day, and is also a day on which public-houses are in full activity. Monday is also in some places a workman's holiday and a day when public-houses are fully open, and on Monday the wages of Saturday are as yet probably not exhausted. This last condition will also apply to Sunday, which also is a non-working day; but on Sunday the public-houses are partially closed and the facilities of obtaining drink diminished; so that the smaller proportion of deaths on the night of that day, as compared with Monday night, finds a probable explanation. Monday night passed, begins the real working part of the week, and the infantile deaths fall off in number, the proportion getting less and less as the week's money is gradually exhausted, until on Friday night there is again a slight rise.



## DR. JOHN MOORE ON TEMPERANCE AND HEALTH.

IN the January number of the *Asclepiad*, Dr. Richardson gives a most interesting sketch, with portrait, of Dr. John Moore, father of the famous Sir John Moore. Amongst many other interesting things respecting the distinguished physician we find the following:—

“Had Moore lived and flourished in these days of progressive temperance, he would have been welcomed amongst the abstaining ranks as an invaluable ally. He was far in advance of his time on this subject. Speaking of intoxication, he reckoned it amongst the causes of fever, and declared that the general bad effect of it upon the constitution is obvious.

“‘Whenever,’ he says, ‘a predisposition to any particular disease lurks in the constitution, intemperance in drinking seldom fails to rouse it into action. Repeated excesses of this kind sometimes produce the epilepsy in those never before subject to it, and always hasten the return and augment the violence of the fits in those who are.

“‘To increase good humour, gaiety,

and wit, and prolong the pleasures of conversation, is the usual policy for such excesses. But if it were a general rule to leave the company as soon as our tastes and talents for sensible or witty conversation began to diminish, few would injure their constitutions by drinking.

“‘There are, indeed, examples of people who support long and repeated excesses without much apparent injury. There are also instances of people who have swallowed poison with impunity. But tell those who are acquainted with such tough and well-seasoned veterans to recall to memory the numbers of their companions who, yielding to importunity, have fallen victims to this easiness of temper, and they will not be much encouraged by the example.

“‘Although intoxication never fails when first indulged to produce most of the symptoms which attend fever, as heat, drought, headache, and nausea, it must be confessed that these wear away by habit, so that those who indulge every day in the bottle, if they



survive the excesses of their youth and escape consumptions, dropsies, and paralytic complaints in more advanced life, are in little danger of being cut off suddenly by a fever from drinking; they will have the comfort of outliving not only their friends, but very probably their own understandings.

“In some instances where people have fallen down insensible by extraordinary excess in drinking, a supervening fever has been considered as the only thing that saved them from a fatal apoplexy. It must be allowed that a disease must be of a very desperate nature for which a fever is the only remedy, and this remedy not always effectual; for it sometimes happens, particularly to young persons of a sanguine habit, that, in consequence of great excess in drinking, a fever of

such violence is raised, that the patient dies after a few days of high delirium.”

“In another characteristic passage Moore points out how the action of alcohol tends to promote *cunui* and depression of the mind. The passage is very true and striking:—

“Of all the contrivances to exclude this intruding demon, *cunui*, from the mind of man the most debasing and destructive is the use of intoxicating liquors; that pernicious habit blunts all desire of improvement, darkens emulation, obscures the understanding, sinks the soul into sluggishness, renders men insensible to the love of reputation, familiarises them with the idea of contempt, and extinguishes every enjoyment but that maudlin delirium, excited by spirituous liquors, which carries them to their graves.”



## DIPSOMANIA BEFORE THE GERMAN PARLIAMENT.

THREE years ago a committee of the Austrian Reichsrath resolved that experiments for dealing with inebriety “had better be left to private initiative than be undertaken by the State.” To-day the German Reichstag is asked by the German Emperor to hand over the treatment of all inebriates to the State, and, moreover, to treat domestic inebriety as a distinctly criminal offence. Section 18 of the new bill provides that habitual drunkards shall be shut up in prison, till cured, by order of magistrates.

Professor Jolly, the director of the insanity wards in the Charité Hospital of Berlin, in a pamphlet on Inebriety and Insanity, read at the recent conference of lunatic asylum physicians in Weimar, insisted that the administration of this provision should be committed to medical men, and not to magistrates only. The Emperor will probably be convinced, by the medical evidence at his command, that inebriety in many cases is a disease, and best susceptible to treatment entirely distinct from that applicable to malefaction.

The opinion of the Austrian Government that the matter had best be left to private governance is out of sympathy with the spirit of modern

legislation. That thousands of people, who would otherwise be useful members of society, are now shelved by a remedial disease, from the cause of which—alcohol—every State derives a large revenue, is an incident of waste which appeals for remedy to the State itself.

The first desideratum is a retreat which shall be effectual in its remedy; and it goes without saying that all such retreats must be systematically visited by doctors, albeit their management may well be in the hands of laymen and women.

It is equally certain that no decree for restraint should be made by a magistrate without adequate evidence, and also without the judge being satisfied—by the testimony of relatives and others—that no improper motive is concealed behind the proceedings.

Treatment and not punishment must be aimed at, for any vindictive spirit shown by the law towards a condition largely regarded both by doctors and the intelligent public as a physical disease will certainly defeat its own aim and result in the ultimate repeal of too Draconian legislation.—*British Medical Journal.*

## DRINK AND INSOMNIA.

PROFESSOR ANNIE E. MORGAN, of Wellesley College, was one of the speakers at a recent Women's Convention in Boston. She said: In my earlier grappling with the problems of life, I consulted a physician of wide experience and honourable reputation seeking a remedy for insomnia.

My physician prescribed a cup of hot milk with a tablespoonful of whisky, dose repeated if necessary. I argued with him, "This is not an emergency in my life; it is my everyday problem, growing more perplexing all the time. I can't build enough brain cells from day to day to keep my temper; because the tension of yesterday anticipates the strain of to-morrow. I am sleepless as soon as the superficial weariness has been brushed off; so I begin the day without adequate capital, and worry through by mean little ways, avoiding fatigue, that make me feel like a pauper."

"Exactly," assented my physician, "and since you can't get ahead of that state of things without more sleep, you must take something to relax the tension. Pure whisky will be less injurious than any anodyne that I can prescribe."

"But what am I to do when the re-

action creates more tension and the tablespoonful won't put me to sleep?"

"Increase the dose."

I think I met the temptation which leads to the depths of intemperance in that problem of insomnia. The right thing to do is to avoid the overwork that causes the insomnia; but the ambitious disposition regarded that as impossible. Then give up that kind of ambition; it must involve a false element. How can I give up my ambition, my life-success would go with it? And women's success needs my actual succeeding. But, above the world's demand for successful women, we can hear the more urgent call for high-minded, true women—genuine in their working and sleeping, beautiful in heart loyalty, seeking the Divine conception of human life. The world-prized success must be relinquished if it cannot be won without staining with unwholesome stimulants the clean body through which the Light of Life comes to my apprehension. It is as dishonourable for me to overdraw my daily income of vital force, as it would seem to you in your son, if he should draw out by forged cheques, the capital which you are husbanding for him in your bank.



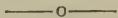
## AN ARMY SURGEON'S EXPERIENCE.

THE *Madras Mail* of the 15th October contained a letter from Surgeon-Captain P. H. Cox, F.R.C.S., in which he says:—"I have given some attention to the question of late years, and I think I am able to show, as far at all events as the British army is concerned, that the 'moral, mental, and physical health' of the troops is more commonly influenced by intemperance than 'teetotal doctrines.' In other words, the unrestrainable passion for drink is the cause of more sickness, more misconduct, and more misfortune, than any other factor known to me. Lord Wolseley declares that temperance raises the moral tone, improves discipline, and engenders manly cheerfulness. Sir James Dornier once remarked to me

(when inspecting a hospital of which I was in charge). "Tea or coffee is preferable to alcohol under all circumstances of a soldier's life." Sir James McGregor, when speaking of the march from the Red Sea to the Nile, relates that the hardships were best borne, and the physical endurance was most marked, when alcohol could not be obtained. During the American war Lord Cornwallis marched 2,000 miles under the most trying circumstances. His men had no spirits, and consequently there was little or no crime or sickness amongst them. The great Professor Parkes states that the courage and endurance which a true soldier should possess are always lessened by drink. He was once in medical charge of the 84th Regiment,

and states that this regiment had over 400 teetotalers in its ranks; the regimental records prove that long marches, tropical climates, &c., were best borne by the teetotalers. I once performed a march from the Bolan Pass to the Kojak Pass in the midst of the hot weather. The distance is about 200 miles. I had then ample opportunity of observing that the total abstainers were more healthy, more vigorous, and in every respect better soldiers, than those who drank rum. Every army surgeon who has any experience in this country knows that intemperance predisposes to sun fever

and sunstroke, hepatic diseases and degenerative affections. Well, therefore, may we say, with an American authority, 'The curse of an army is intoxicating liquors.' In the face of such evidence, it seems to me deplorable to find young gentlemen, who ought to know better, holding forth at messes and club-houses, and asserting 'The climate requires alcohol;' 'Nothing like plenty of rum on a march;' 'Give the beggars plenty of spirits before an action, and you see how they will fight. Ay, like bulls, with heads down and eyes shut.'



## LUNACY AND ITS TREATMENT.

THE newspapers announce the publication, by Messrs. Churchill, of the first two volumes of Mr. Henry C. Burdett's work on "The Hospitals of the World," which is said to be "a monument of patient and painstaking industry." Referring to the exclusion of beer from the dietary of English county asylums, Mr. Burdett says:—"Some superintendents even go the length of saying that an improvement has taken place in the condition of the patients since the withdrawal of the beer. They are said to be more tractable, less excitable, and more willing to employ themselves. Now, as the usual asylum allowance was one pint daily, generally given at lunch and dinner, it must be manifest to every one that the withholding of this could have no effect whatever, more especially as the beer given was of the weakest description." If Mr. Burdett refers to the last report of the asylums under the London County Council, he will there find medical testimony that ought to convince him of the good effects resulting from the withholding of even a small allowance of alcohol.

Regarding the United States, Mr. Burdett says:—"Returns from the United States show that thirty-four asylums withhold stimulants as part of the ordinary diet. In a few cases milk is given as a substitute, but coffee and tea most frequently take the place of alcohol in the United States asylums."

The proportion of lunatics under Government care to the population in Egypt is very small, and is partly accounted for by the fact that the Egyptians regard their insane as beings especially afflicted by heaven, and therefore appealing to private consideration and care. There is only one asylum, and "the largest proportion of the inmates are directly or indirectly victims to the excessive use of hasheesh, a drug extracted from hemp, one or two drachms of which is sufficient to cause intoxication. Many are discharged cured of the fever of insanity arising from indulgence in this drug, but they nearly invariably yield again to the temptation, and are forced to return to the asylum time after time, and finally end in becoming hopeless maniacs."



# British Medical Temperance Association.

*President.*

Dr. B. W. RICHARDSON, F.R.S.

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Dr. WELSH, Wrenbury, Nantwich.

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Dr. J. J. WILSON, Anstruther.

### NEW ASSOCIATES.

Mr. W. R. FORBES, Edinburgh.

Mr. C. J. C. KINGDON, Edinburgh.

## IRISH (CENTRAL) BRANCH.

### NEW MEMBER.

Dr. LAWLESS, The Asylum, Sligo.

## NOTICE.

Members and Associates who have not paid their subscriptions for 1891-2, are requested to do so.

J. J. RIDGE, M.D., *Honorary Secretary.*

*Carlton House, Enfield, March, 1892.*

## WINTER QUARTERLY MEETING.

THE usual quarterly meeting of the above Association was held on Friday, 22nd January, in the library of the Royal Medical Society's Rooms, Hanover Square, when Dr. A. J. H. Crespi, of Wimborne, gave an address on "Adulterations of Alcoholic Beverages." Dr. C. R. Drysdale presided.

Dr. CRESPI said he came before them rather as a learner than a teacher. For many years he had spoken on temperance platforms, and had found the widest divergence of opinion among his audiences. It used formerly to be said that a great many alcoholic beverages contained no alcohol at all, so freely were they adulterated, and it had been his custom when addressing temperance meetings to inveigh vigorously against this state of things. He used to consider alcohol the least dangerous of the poisons contained in in-

toxicants, when copperas, sulphuric acid, grains of paradise, and many other deadly drugs, were commonly supposed to be generally used in their manufacture. He often used to wonder whether the evils of drunkenness were not the result of the adulteration, and not of the alcohol. In a very confused state of mind (said Dr. Crespi) I wrote for advice to Dr. Richardson, who replied that he would be pleased to see the matter discussed, but was not able to say anything from personal knowledge, though he thought that, owing to the severe penalties imposed, adulteration was not at all general or injurious. A similar letter was then sent to Dr. Bostock Hill, who replied, "No publican dare adulterate. Publicans and brewers can, under the Adulteration Act, be prosecuted, and the penalties are most severe. The



beer now sold is absolutely pure." Upon the receipt of this letter Dr. Crespi came to the conclusion that the opinions he formerly expressed were erroneous. Quite recently he noticed a report in the *Times* of a prosecution against a publican for selling beer containing seven grains of salicylic acid to the gallon. The defence was that the beer had been imported from Germany, and the publican had returned it when he found it was impure, though inadvertently one or two barrels had been allowed to remain. The magistrate inflicted the full penalty. This prosecution confirmed his opinion. The very minutest quantities of poisonous drugs could be easily detected, and with public opinion so strongly against them in this matter the publicans would never dare to run any risk. The work of temperance people was to fight alcohol. His observations as to its action were made not only in social life but in the sick-room, with the result that he never bought it, never tasted it, never prescribed it, and never allowed it in his house.

The CHAIRMAN, in thanking Dr. Crespi for his speech, remarked that he thought the laws in this country were so framed that it was very difficult to adulterate. Alcohol itself was quite sufficiently poisonous, but in other countries the same condition, did not obtain, notably in France, where, at Finisterre, 42 per cent. of the cases in the 'lunatic asylum were due to the consumption of spirits made in the locality, which contained, in addition to the alcohol, many other dangerous substances. His experience was that alcoholism in this country was not in any way attributable to adulteration.

Dr. RIDGE thought that adulteration, especially of beer, was not practicable. The materials from which beer was now made were so cheap that it would never pay to use anything else. To be sure when beer had "gone off" it was often returned to the brewers, who treated it to a course of "medicine," which brought back, in

appearance at any rate, some of its lost character, and he had had in his hand a publican's mixing book, which gave particulars for the manufacture of every kind of alcoholic drinks in illegitimate ways. The great field of adulteration was undoubtedly wines, which, by the aid of silent spirit, were now made from almost anything in the world but grapes. Dr. Ridge described the amusing experiment made by the late Dr. Collenette, who manufactured from chemicals alone, before a public audience, a bottle of port wine—not even forgetting the much appreciated "cobwebbing"—with such success that connoisseurs in the room were not able to distinguish either by taste, smell, or colour, the chemical compound from the supposed pure wine they themselves had brought for the purpose of comparison. With such opportunities for deception, it was not remarkable that spurious wines were manufactured wholesale. Many people had great faith in port wine, and often poor people would stint themselves to get it for their sick friends; but so rare was the genuine article that it was ten to one such people never bought what they paid for. But in all the manufactured wines there was alcohol in large quantities, which they knew destroyed the human system, and the object of the temperance man should be to get alcohol classified under the list of poisons and only used as such.

Mr. RICHARD ROBERTS, L.C.C., mentioned the curious coincidence that when passing through Rheims he had frequently noticed a great number of railway trucks filled with apples. The tremendous quantity of wine now drunk was more than could be produced by natural means. If the true nature of these drinks could be shown up—that champagne was often nothing but feeble kind of cyder, and port wine owed its charm to logwood—the shaft of ridicule would kill the custom as nothing else would.

After a few words from Dr. CRESPI in reply, the meeting adjourned.



## Notes and Extracts.

**TREATMENT OF HABITUAL DRUNKARDS.**—In reply to a question in the House of Lords (21st March), the Lord Chancellor announced that the Home Secretary was about to proceed immediately with the appointment of a Departmental Committee to inquire into the best method of dealing with habitual drunkards.

**ETHER-DRINKING IN RUSSIA.**—The practice of ether-drunkenness to which attention has been called in Ireland, and which has required a change in the law to put a stop to, has extended to Russia, and is rapidly spreading there. The Government has found it necessary to prohibit the sale of ether and of correlative substances, such as Hoffman's anodyne, except under severe restrictions.—*Medical Press*.

**WINE COMPANIES AND MEDICAL ADVERTISEMENTS.**—Dr. J. Fletcher Little directs our attention to the objectionable way in which the medical virtues of a certain wine are described in a very widely-circulated pamphlet. We agree with him. It is surely possible to advertise a wine without entering into all the details of chlorosis, the mysterious joys of maternity, &c. Such a parade of questionable learning is not likely to conciliate the medical profession.—*Lancet*.

**INSANITY IN PARIS.**—From a report recently issued by Dr. Paul Garnier, medical officer to the special infirmary attached to the Paris Prefecture of Police, it appears that the number of cases of insanity registered there in 1888 was 4,449, as against 3,080 in 1872, being an increase of about 30 per cent., or nearly one-third. The total number of insane persons known to the authorities in the French capital from 1872 to 1888 inclusive was 62,571, of whom 34,882 were men, and 27,770 women.—*British Medical Journal*.

**FEMALE ALCOHOLISM IN FRANCE.**—One of the most serious and obvious features of the effects of liquor in France, is the amount of absinthe drunk, especially by the women. The

effects of absinthe on the body are bad enough, but its deadening, debasing effect on the moral sense is a thousand times worse. Alcoholism is steadily increasing among the women of France, and among the lower classes in particular. M. Devoisins, a French physician, is the author of a paper entitled, "La femme et l'alcoolisme," in which, drawing his conclusions largely from what he has seen in his practice, he describes a state of things with regard to drinking among women which, if not checked, must produce disastrous effects on future generations.

**MORE DRINKING.**—We record with shame and regret the fact that last year the United Kingdom drank more than the year before to the amount of one million and three-quarters. The consumption of spirits amounted to 30,744,209 gallons, or 1,333,778 gallons more than were consumed in 1890. This is an appalling fact, even though the rate of augmentation of beer consumed is said to be rather below the average. It is our profession that sees the results of this increased traffic in alcohol in the degradation of personal and family life. We cannot pretend to say how it is to be stopped. If the evil could be taken out of the category of questions over which parties fight and make capital, something would be achieved. It is a disgrace to all parties alike.—*Lancet*, February 27.

**NO ALCOHOL MADE IN THE BODY.**—Dr. T. S. Lambert, has been delivering a series of lectures in New York on the injurious effect of alcohol upon the human system. Among other interesting things the doctor said that the effect of alcohol upon the body, sick or well, is and cannot fail to be highly injurious. Alcohol, which is the scavenger of nature, can be made analytically only by the yeast-cell creature. This creature, the ferment, so-called, converts one molecule of glucose, or grape sugar, into two molecules of carbonic acid gas and two molecules of alcohol. It cannot

live in a temperature higher than 75 degrees, and, as the normal temperature of the human body is not lower than 95 degrees, it follows that there is no free alcohol in the body. That is, none is made there. Whatever is there has been taken in.

**BRANDY AND INFLUENZA.**—The announcement that “Lady Brooke’s Fund for the Relief of the Distress from Influenza” had commenced proceedings by distributing 2,000 bottles of brandy is picturesque but alarming. It is highly suggestive to the comic cartoonist. If this rate of distribution is to be continued, and to extend throughout the kingdom, the remedy is likely to be worse than the disease. Why these oceans of so-called brandy? Sound cognac is hardly to be had now, even at fancy prices. Will not the encouragement of free drinking and encouragement of the wretched habit of flying to the bottle as a panacea for ordinary ailments tend to increase precisely that distress which this ill-judged bounty aims at alleviating? If this be Lady Brooke’s way of doing good, it would be just as well that she should not multiply the mischief by holding up her example to the world in communications to the public press. —*British Medical Journal*, Jan. 30.

**DRINK AND SUNSTROKE.**—In Surgeon Parke’s new book of “Personal Experiences in Equatorial Africa,” it is interesting to note his reference to the part drink plays in producing sunstroke. He says (page 455):—“I have no doubt that the remarkable immunity of our men from sunstroke can be partially credited to the fact that the heads of the carriers were always protected by their loads during the march; but I do not by any means think that their safety was altogether due to this. As a matter of fact, I have seen more cases of sunstroke in one day at Aldershot than I have ever met with in the whole course of my seven years’ African experience, including the Egyptian war of 1882 and the Nile campaign of 1884-85, although in the latter I went as far south as Metammeh—within sixty miles of Khartoum. Drink is certainly

the most powerful predisposing cause of the development of the symptoms of sunstroke.”

**ALCOHOLIC DEMENTIA** is a distinct form of secondary dementia. It generally occurs in those people who have persistently soaked in alcohol for years. It is not so apt to occur in those who have periodic drinking bouts, or who may be the subjects of occasional attacks of delirium tremens. It is the steady drinker, who may never get absolutely drunk, but who nevertheless drinks persistently from year’s end to year’s end, that is most liable to this form of insanity. The striking peculiarity of alcoholic dementia is the complete failure of memory for recent events. The patient may remember with accuracy and discuss fluently historical questions requiring a knowledge of dates, events in his past history, even his present position, but in the great majority of cases within twelve hours, often within five minutes, he will have totally forgotten that he held such a conversation with a second person.—*The Hospital*.

**IMPORTANT DECISION UNDER THE HABITUAL DRUNKARDS ACT.**—On Friday Feb. 19, at the Manchester County Court, His Honour Judge Heywood had before him the ex-parte application of a man for the discharge of his wife from a local retreat for the cure of habitual drunkards. The applicant, who was represented by Mr. Arthur Catlow, solicitor, is the keeper of an hotel in the city. Some three months ago he arranged for his wife to be detained in an inebriates’ home at Fallowfield with the object of curing her of an inordinate love of drink, and agreed to pay 15s. a week towards her maintenance. The period of detention, by mutual agreement, was twelve months. Finding, however, that his business was falling off, that he was unable to continue his payments, and believing that his wife might safely be again entrusted with her liberty, he applied to the judge for an order of discharge. His Honour said he had caused full inquiry to be made into the circumstances of the



case, and on the report which he had received he felt justified in ordering the woman's release. Mr. Sutton, barrister, appeared in opposition to the application on behalf of the managers of the retreat, who contended that a proper cure could not be effected in less than the twelve months originally agreed upon.

**THE SOBRIETY OF MEDICAL MEN**  
—The law of the State of Georgia dealing with medical practitioners addicted to alcohol has attracted much attention on both sides of the Atlantic. In this country it was held that the terms of the law in question were both insulting and uncalled for, and even contemptible, as applying to the members of a "learned" profession. However, it may be that we have still something to learn in regard to the alcoholic proclivities and temptations which exist on the American continent, so far as members of the medical profession are concerned. We gather, for instance, from a contemporary that a short time ago a Cincinnati doctor was taken off the streets suffering from delirium tremens, while another was locked up in the workhouse convicted of habitual drunkenness. Still more remarkable, however, is the statement that one of the most prominent men in the Cincinnati Medical Society, some years ago, conscious of his consuming appetite for rum, invariably wrote his prescription twice, each time keeping a copy, thinking thus to escape any mistake which he was afraid he might commit while intoxicated. These are unquestionably difficult facts to dispose of by any explanation, assuming, of course, that our contemporary has not been misinformed, and the only conclusion to be drawn from them is that the State of Georgia cannot have been very far from the mark in acting as it has done.—*Medical Press.*

**UNCONTROLLABLE DRUNKENNESS.**  
—Dr. L. Forbes Winslow has published a shilling *brochure* (Henderson and Spalding, Marble Lane) on "Uncontrollable Drunkenness considered as a Mental Disorder," in which he maintains that the Habitual

Drunkards Act is "worse than useless," and that "the so-called establishments are a delusion and a snare." He advocates the establishment of sanatoria similar to those now existing in Belgium for the legal detention and control—not of the ordinary class of drunkards, who only occasionally gratify their appetite in "potations pottle deep," and who have to a great extent the capacity of resisting the tendency to indulge to excess in the use of stimulants, but to a type of case too common in this country, in which intemperance has apparently assumed many of the characteristics of bodily and mental disease. He further says:—"If such sanatoria were erected in this country under legislative protection and proper medical supervision, it would be a move in the right direction; but inasmuch as none exist, and there is no likelihood of any such establishments being found in England for some time to come, and in consequence of the alarming spread of this disease in England, and our inability to legally deal with it in our own country, it behoves us, until the Legislature regards it as a form of mental disorder, to look elsewhere for help and assistance. In Belgium dipsomania is regarded as a form of mental disorder, and the same documents are required to place such a person under supervision as in a case of ordinary mental unsoundness. Dipsomaniacs can not only be placed in these institutions, but retained there until recovery has taken place. Medical certificates on the prescribed legal Belgian forms, signed by English physicians, in England, are accepted, and are valid in Belgium; and the necessary legal preliminaries are in no way complicated. All these institutions in Belgium are well managed, and are under frequent official visitation and inspection, and to the same extent as in England, some of the leading physicians in the country being attached to them as consultants. The accommodation is as good as that provided here, and the charges vary from one pound a week up to five, according to the requirements of the case."



THE  
MEDICAL TEMPERANCE JOURNAL,  
July, 1892.

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Original Contributions.

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PROFESSOR FOSTER ON ALCOHOL.

WHEN a scientist of great eminence makes a public statement on a question of vast importance to the nation, he is listened to with very grave attention by the more thoughtful part of the community. But when the question dealt with, in addition to its intrinsic interest, happens to involve points of difference which have been long and warmly contested by large and influential parties, the interest felt in the subject is greatly extended and deepened.

In such an address we naturally expect to find the subject treated in a lucid and philosophic manner, broad principles laid down, pertinent facts fairly stated, their value rightly estimated, inferences clearly drawn and conclusions legitimately arrived at of a thoroughly practical character.

There is no subject before the public which is of greater importance than is that of the use of alcohol. There is, perhaps, no other question which touches the vital interests of the nation at so many points. It would be difficult to find an agent which so directly affects the public health. Health is the basis of the wealth, the progress, greatness, happiness, and permanence of a nation. But health depends on the observation of certain conditions, and in proportion as these are generally understood and observed will a nation be healthy.

It is the business of the physiologist to teach what are the conditions on which health depends. The chief occupation of medical men is the cure of disease, and this, in the present state of society, is a matter of vast importance. But, in view of the highest interests of the nation, the prevention of disease is of immeasurably greater concern than is its cure. He who devotes

himself to enlightening the public as to the best means of conserving health, holds a higher and a more honourable position than does even the man whose duty it is to instruct students in the art of curing disease.

One of the most important subjects with which the physiologist has to deal is Dietetics. Any error in the choice or use of the articles coming under this category, is contributive to disease. Hence it is an important part of the duty of the physiologist to study the nature, action, and the effects produced by the articles which enter into the dietary of the nation.

Amongst the most common constituents of the dietary of this country are alcoholic liquors. These articles are consumed not only in enormous, but in increasing quantities. The national expenditure thereon increases year after year, so that last year the sum spent amounted to over £140,000,000 sterling. The question naturally arises, What are the effects on the national health, resulting from this enormous consumption of the special article, alcohol? Physiologists are the men who should be best able to supply the required information.

Professor Foster, of the University of Cambridge, holds a foremost place in this country as a physiologist. Hence it might be predicted that no man ought to be regarded as better qualified to give an opinion on the physiological effects of alcohol. It was quite natural, therefore, that he should be invited to deliver a lecture on the subject. The request that he would do so came from a body of total abstainers from alcohol. These gentlemen, judging from the opening remarks of the Chairman (the Hon. Mr. Lyttleton, Master of Selwyn), evidently knew that the Professor was not quite in accord with them, nevertheless they were prepared to listen attentively and courteously to what he might have to say on the subject. The Professor very kindly acceded to the request made, and addressed a public meeting, which we are informed was composed chiefly of members of the University, many of them, like the Professor himself, having scant sympathy with either total abstinence views or practices.

The lecturer commenced very modestly, but it must be confessed, considering the immense importance of the subject, with the marvellous confession, that, "on this particular point—the action of alcoholic drinks upon the economy—he had on the whole very little to say; and that little was neither very strong nor very definite." Possibly to allay the surprise of some of his hearers, he added: "he thought he could tell them as much as was known on the subject, and that he ventured to offer them." This declaration evidently reassured the audience, for it elicited their applause.

The Professor first considered alcohol in relation to its claim as

an article of food. He stated that the subject "had been much debated, but he thought he might say definitely, as a result of a series of observations, that there could be no doubt that alcohol was oxidised in the body when not taken in too large an extent; and if oxidised, it must supply a certain amount of energy, a certain amount of power. On that point he thought at the present time there could be no doubt." This may be quite true as far as it goes, but it is not the whole truth, and we know only too well that half-truths are apt to be seriously delusive. What is quite certain is that whilst alcohol may be oxidised in the tissues, it tends to prevent their oxidation; it obstructs those changes which should normally take place; it interferes with the natural processes, which result in the evolution of energy and of heat. Hence we find that after even small doses of alcohol, the temperature of the body is lowered, the output of carbon dioxide is diminished, as also is the excretion of urea. Schmiedeberg has shown, as Dr. Harley had previously done, that alcohol seems to form a compound with hæmoglobin adverse to functional activity, hence the red corpuscles of the blood take up less oxygen, and therefore give up less to the tissues; hence the diminished oxidation of the fats and carbo-hydrates accounts for the diminished excretion of  $C O_2$ , whilst the lessened oxidation of the albuminous tissues accounts for the lessened output of urea. If the normal chemical changes are thus obstructed, alcohol must not only lessen bodily heat, but vitality also. If the fatty constituents of the albuminous tissues are not oxidised, fatty degeneration is likely to result; and in this respect alcohol takes rank with poisons like arsenic and antimony. If it has a faint claim to be classed as a food, it has a very strong one to be regarded as a poison; if it is one part a heat producer, it is four parts a heat reducer; if it is a stimulant in the first instance, it is still more a depressant in the second. Professor Foster unfortunately only presented one side of the shield to his audience, and that was the least important one.

In order however to place his view of the subject beyond doubt, he laid aside physiological argument and resorted to clinical proof. He said that "It was probable in certain cases, more particularly in cases of illness, that the amount of power which was thus afforded by a certain quantity of alcohol, which readily passed into the system, and was readily made use of, was valuable for the continuance of the economy, and that under these circumstances, a certain quantity of alcohol preserved the slender thread by which life was led along a narrow path, and eventually out of 'the valley of the shadow of death.'" That he thought was extremely probable; "in any case, there was no doubt it was valuable as a source of power."

If alcohol were "a source of power," if a certain quantity preserved the slender thread by which life was led along a narrow path, ". . . out of the valley of the shadow of death," then it is deserving of Professor Foster's commendation as a therapeutic agent. But in that case ought we not to find that instead of the diminishing consumption of alcohol which of late years has occurred in our hospitals being attended with a diminished death-rate, the proportion of deaths had increased? Is this the case, however? No. Physicians and surgeons are finding out that "wine is a mocker" and they are less free with its use than their predecessors were, although they supposed that they were careful in its employment. I venture to give the following clinical case in illustration of the fatal delusion which the Professor's doctrine is calculated to support; it would be very easy to give others did space permit.

The writer, when senior house surgeon of a provincial hospital, received an urgent call on a Saturday night to go and see a young man who was said to be either dead or dying, in consequence of an injury which he had received. On going to the place indicated—a wretched den—it appeared that the man had got drunk, and in a quarrel had thrust his naked arm through two or three panes of glass; some one inside had seized the wrist, and the poor fellow in struggling to get free had lacerated the limb very extensively, owing to its coming in contact with the points and edges of the glass which remained fixed in the frame. I found him suffering from severe shock, in an utter state of collapse, and, as reported, apparently dead or dying, the floor of the cottage being covered with blood, of which he had lost an enormous quantity. His features were blanched and corpse-like, he was pulseless and cold. A slight movement of the heart could, however, be detected. I therefore sent for warm blankets in which to wrap him, and for a stretcher on which to remove him. On reaching the hospital he was laid in a warm bed, hot bottles applied to the feet and sides, and a little hot milk with weak tea was administered in teaspoonfuls by the nurse. It was at first very difficult to get the poor fellow to take even those small quantities, but by means of the vapour of ammonia applied to the nostrils occasionally, he was sufficiently roused to enable him to swallow the liquid placed in his mouth. The nurse on duty had strict orders not to allow ten minutes to elapse throughout the night without giving hot milk or hot barley-water or the two combined, and if he became any worse I was to be sent for. I visited the man about 2 a.m., and found him going on fairly, all things considered. I recommended that the warm liquids should be continued, but increased slightly in quantity. At mid-day on Sunday the man had regained consciousness and had begun to show signs of developing vitality.



He was ordered beef tea in addition to the milk and barley-water ; at intervals he slept, and was then left undisturbed, but was plied with liquid nutriment in one form or other whenever he was awake. During the night he slept for more than an hour at a time, and in the morning there was a faint blush on his cheeks, his eyes had brightened, and his pulse, which had been perceived only in the faintest degree on the previous night, was now very perceptible. Nothing could have been more satisfactory both to the nurses and to myself than the progress which the man had made.

At ten o'clock (Monday), on the arrival of the surgeon of the day—a very skilful man—the case, according to usage, passed out of my hands into his. I explained what had happened to the patient and what had been done. The only alteration made was, that in addition to the food which was being given at frequent intervals a tablespoonful of whisky was to be added every two hours. I left the case in the hands of my junior, as I had duties elsewhere. Indeed, to speak quite candidly, I had feared that the surgeon under whom the case now came, and who was a thorough believer in the food value of alcohol in great debility, would order its use, and I resolved that if he did, after I had shown how satisfactorily the man was progressing without any, that I would have nothing further to do with the case. In the evening, on making inquiry I found that the man was by no means as well as in the morning, the stomach had become irritable, less food was being taken. As the nurse had received strict orders that the whisky was to be given regularly, though I felt it was doing harm, I did not feel justified in interfering, more especially as the surgeon had arranged to see the case in the morning. The patient had a restless night, owing to occasional attacks of retching. The gentleman in charge of the case saw the man in the morning, he was informed of the bad symptoms which had developed, he ordered a sedative mixture, but requested that the doses of whisky should be continued. My other duties prevented me from seeing the patient till the next day, I was then shocked by his wretched appearance ; when the surgeon came he ordered the use of whisky to be suspended. Alas, it was too late, the poor fellow died in the afternoon. It is, I think, quite certain that but for the alcohol, given with the very best intention, the man would have been lifted out of “the valley of the shadow of death” in which I found him. This sad case seems to offer a crucial test of the difference between the alcoholic and non-alcoholic treatment in extreme debility ; it showed but too clearly that to regard alcohol as a food is a delusion, and may prove to be a fatal snare.

The Professor in his effort to defend the moderate use of alcohol said : “ But the question arose, because a certain quantity

of alcohol produced drunkenness, did it necessarily follow that they should describe the effects of a smaller quantity as being a condition of being a little drunk? Was the effect of the smaller dose the same as that of the larger dose, but only in a less degree? If he were asked whether, physiologically, that necessarily followed, he replied, 'No, certainly not.' (Applause.) Now whilst desiring to speak of Professor Foster with all due respect, the question arises whether it is not deplorable to find a gentleman whose teachings necessarily have considerable weight, more especially with the young men who are brought under his influence year after year, becoming the apologist and defender of a practice totally unnecessary in health, which if adopted by them will almost inevitably prove more or less a hindrance to all, whilst it will as certainly seriously injure many, and will bring some to shame, to ruin and to premature graves. It is to be regretted that it did not occur to the learned Professor that this sort of special pleading is employed by all sorts of self-indulgent persons in defence of injurious habits. There can be no denial of the fact that alcohol, as already intimated, is as essentially a poison as is arsenic. It is true that if taken in very small doses no immediate injury can be detected. Indeed there are persons who regularly use arsenic "in moderation," and will assert that they are benefited thereby. But we can fancy Professor Foster's pity or contempt for one of these individuals who should attempt to justify his practice by adopting the policy of those who—

"Compound for sins they are inclined to,  
By damning those they have no mind to,"

and, assuming a virtuous air, denounce the excessive use of arsenic as very bad, declaring that it "produced enormous evils," that if "taken in certain quantities repeatedly, continually, deteriorated nearly all the tissues of the body and brought about premature decay;" but tried to defend his own practice by asking whether "because a certain quantity of arsenic produced what was called" intoxication (it is needless to say that drunkenness is a form of intoxication), "did it necessarily follow that they should describe the effects of a smaller quantity as being a little" intoxicated ("drunk")? Would not the Professor brush aside such flimsy sophistry by declaring that quantity never alters quality; that the taking of any virulent drug by a healthy person was an outrage, a crime against the constitution, since it would necessarily inflict injury, in proportion to the amount taken, on an exquisitely beautiful and most elaborate piece of mechanism. How, then, comes it that Professor Foster has recourse to such special pleading in defence of the use of alcohol? An atom of arsenic has a highly pernicious effect on a molecule of protoplasm; so

has a molecule of alcohol. Each has a lethal effect on "living substance," each may prove useful in special forms of disease, but each will be injurious in health in proportion to the quantity taken. Possibly the Professor would object to the comparison of the two agents on the ground that the alcohol had a food value, whilst arsenic had none. But surely the Professor would not deny that the food value of alcohol in the body is very small; if it is one part food it is four parts poison. The food property of alcohol, if it has any, is so small that its consideration may be ignored. Alcohol and arsenic agree in this particular, they both act antagonistically on albumens, they are each essentially irritant poisons. Both are used by healthy persons, who will declare that so far from being injured by the moderate use they are benefited thereby, but in both cases the alleged beneficial effects are delusions.

But alcohol differs from arsenic in some other points, *e g.*, it produces a more vivid and pleasing state of feeling. In this respect it may be compared with opium. Hence, whilst it is an irritant poison like arsenic, it is a seductive poison like cocaine and morphia.

One might well have supposed that the use of a thing possessing qualities so deceitful and so destructive, would have been sternly reprobated by a gentleman whose especial business it is to discover and to expound the laws of health; unfortunately all this was conspicuous by its absence.

The Professor, in an eloquent passage, spoke of the admirable and wonderful relation which existed between the various and highly complicated organs of the body. He showed how each part sympathises with and aids its fellows in case of need; he spoke of the independence of the various parts and the extent to which each contributes to the well-being of the whole, thus presenting a picture showing clearly how fearfully, wonderfully and beneficently we are made.

The question arises, Did the lecturer press upon the attention and consciences of his hearers the important practical lessons to which his exposition logically conducted? Did he remind his hearers that to each of them had been committed the care of one of these most elaborate and exquisitely-designed pieces of mechanism? Did he point out how easily and how long it might be kept in perfect working order, if the essential conditions on which its right working depends are intelligently and piously fulfilled? Did he show how simple yet how supremely important those conditions were, and how easily they might be fulfilled? If he did, it is most unfortunate for the reader of the report and most unfair to the lecturer that not the slightest reference is made thereto.

Alas, it is to be feared that there were no such references. Indeed, it is very apparent that to have made them would have proved antagonistic to the object which the learned lecturer had in view. That object might have been to show that the mechanism, though admirably constructed, was not as perfect as could be desired, since what was good for it under some ordinary conditions might be bad under others; and *vice versa*, what might be bad under some ordinary conditions might be good under others. All this specious argumentation was employed in order to justify the use of a poisonous agent by persons who are not intelligently and conscientiously fulfilling the conditions on which health depends, who in fact seek pleasure from using an article which is antagonistic to health, although health is the basis of all real pleasure.

The plain and unvarnished truth is this. The Creator has made health to depend chiefly on the intelligent use of food, water, air, exercise, clothing, and the like. How does alcohol stand in relation to these? We have seen that it is not a food, but is almost wholly a poison. Natural food is bland, mild, almost odourless and tasteless; cereals have these qualities, so has the model food milk; water has neither taste nor odour, air has neither taste nor odour; alcohol has a burning acrid taste and a decided odour. But the agents now named will not of themselves keep the system in a sound condition; exercise, physical and mental, is a *sine qua non* if the fullest measure of health is to be enjoyed. It is extraordinary how spare may be the food, how impure the water drunk, how foul the air breathed, how scant the clothing, where a large amount of physical and mental exercise is taken; where both mind and body are well employed, even comparatively large doses of arsenic or alcohol may be taken for years with apparent impunity. But, speaking for this country, the majority of those who use alcohol in what is called moderation, are indoor workers or dwellers, and either do not get sufficient air and good food or they eat too much; people then seek in artificial stimulants substitutes for the normal ones. Professional men over-work the brain and under-work the body, and try to square matters by the deceitful aid of alcohol. Perhaps no class of men are greater sinners in this respect than are fashionable physicians. They too often seek to find a solace for the discomfort their sedentary duties entail in the use of wine. There is no wonder that fashionable people generally are influenced by their example and led by their advice.

Professor Foster sought for a sanction of all this in a most extraordinary sentence. He said, speaking of digestion, he thought "that the teaching of physiology went so far even as to say that, at all events with certain persons, under certain circum-



stances with a certain quantity of certain alcoholic drinks, the digestion was more efficient in the stomach than it was in the absence of alcoholic drinks." Now we have here certain asserted certainties, which involve us in the utmost uncertainty.

1. How shall we recognise the "certain persons" whose dyspeptic stomachs are to be benefited by alcoholic drinks?

2. What are the certain "circumstances" which in dyspepsia will be corrected by alcohol?

3. What is a "certain quantity"? We learn that it is the very *uncertain* quantity "ordinarily spoken of as a moderate dose," which has been defined as "something between a glass and a gallon." The notions of dyspeptics on the subject are as a rule notoriously untrustworthy; the man who has most injured his stomach by wine is the most afraid to tell the truth, lest the doctor should cut off what he regards as the source of his greatest enjoyment. How then, is the prescriber to be "certain" as to the quantity to be ordered.

4. What are the "certain alcoholic drinks"? Certainty in "quantity" is certainly important, but certainty in "quality," to say the least, is equally so. This, however, is one of the most certain of uncertainties; wines which pass under the same name, port, sherry, champagne, &c., differ to an extraordinary degree in the amount of alcohol they contain, as well as in the ethers, extractive matters, &c. Where is pure alcohol to be obtained? Certainly not in the fabrications which pass for brandy. Not in the whisky containing more or less fusel oil; not in the varying ales, even though they come direct from the cellar of the brewer, and have therefore escaped being doctored by the publican. If "the teaching of physiology" is so hopelessly at sea, is so uncertain about what it categorises as "certain," it is because it is meddling with matters which lie outside of its own domain, it is pronouncing on a question it does not rightly understand; the physiologist is trenching on the province of the physician. What physiology really teaches on the subject of digestion is, that if properly supplied with suitable material, the stomach will do its work so easily, with such an absence of friction, that the owner will not know that he has such a complex organism within him. We learn that its activities are so perfectly automatic that the mere entrance of food sets the machinery in motion, causes multitudinous glands to commence secreting, and an infinity of muscular fibres to begin contracting, causing the food to rotate, so as to expose every particle to the action of the gastric juice, whilst the passage at the far end leading into the bowels is kept firmly closed, until the turning and churning work is complete; then the food is allowed to pass into the first part of the intestinal canal, where it is acted on by other important glands, and all this

complicated and prolonged process is insensibly performed. Now the simplest degree of ordinary intelligence, ought to prevent us from meddling and tampering with such an exquisite and complicated piece of mechanism. Reverence for the sublime wisdom of the Creator, as well as a regard for our own well-being, should save us from the wickedness and folly of irritating it with a poisonous drug. Cases are occasionally reported in the medical journals, showing that individuals have for a considerable length of time swallowed pebbles, stones, nails, and similar indigestible substances. But the erring individuals have been crazed, and the consequences have ultimately proved fatal. There are, however, vast numbers of persons whose conduct is almost as irrational, but who cannot plead mental incapacity, at least on the grounds on which we excuse dements.

But physiology further teaches us that we must not merely look at one organ, but must recognise its relation to all the others, that whilst the stomach ministers to the welfare of all the rest, its vigour largely depends on their fulfilling their special duties. Every organ in the body is influenced by the limbs. If these are not duly active all the other organs become weakened and flag in their work. People who have not to toil for their daily bread, and all who have not a vivid and abiding sense of the importance of muscular exercise, are apt to shirk physical exertion, and therefore digestion is weakened, and the whole system more or less suffers. The doctor too often, instead of informing the patient that indolence is responsible for his indigestion, orders for him the irritant alcohol; one unnatural course is thus followed by another. The intelligent and unbiassed physiologist would be justified in telling both doctor and patient that to use the whip to a horse stiff and weak through inaction was monstrous folly. The man who takes sufficient outdoor exercise from his earliest years does not know what dyspepsia means.

It is the same with the heart; there is no cardiac weakness, no fluttering, no irritability, if the individual systematically takes a proper amount of exercise. To order a patient, whose circulation is weak in consequence of insufficient out-door exercise, to take so much alcohol daily, is lamentable. Of course a person of ordinary intelligence knows, on the other hand, that over-work, excessive exertion, is to be avoided; he must exercise his brain as well as his limbs, and if he does that adequately he will not suffer from heart strain, atrophy, or degeneration.

The lecturer is reported to have informed his audience that, judging from the effects of small quantities of alcohol on the stomach and heart, "it was possible, and even probable, that under certain circumstances the effect of a small quantity of alcohol on the brain might be a beneficial one, and especially in

this way; it might prevent the brain from worrying the stomach, and from worrying the other organs of the body; for it was the great prerogative of the brain to be always worrying the other organs of the body, and it might prevent the brain from worrying itself"! This is such a marvellously strange statement to come from an eminent physiologist, that one cannot but suspect he has been misreported. A healthy brain, like a healthy stomach, never worries, unless it is in some way abused; it does its work so smoothly, so admirably, that if the other organs are doing their work rightly, the possessor is not conscious that he possesses a brain. If the brain worries it is because it is, or has been, badly treated; it may be that it has suffered from overstrain, or its opposite, inaction; or it may be that it has been subjected to the action of an irritating agent like alcohol, and has been brought into a morbidly sensitive condition, the owner treating it as many an ignorant mother does her infant, worried by an overfilled stomach—trying to stop the child's cries by giving it more food, she mistaking symptoms of repletion for hunger. No wonder that a brain which is systematically worried by an irritant should worry itself and every other organ. Yet such is the infatuation of the owner of such a brain, that he tries to get rid of the brain worry by introducing another dose of the worrier.

Nothing is commoner for persons who have been accustomed to take wine or beer once or twice a day with their meals, than to find shortly after giving up the practice how much calmer the feelings are, how much more equable is the temper, how much more refreshing is the sleep, how much more buoyant are the spirits, and how much pleasanter life becomes. In establishments where a number of servants are kept; in hospitals, and in asylums, it is well-known that after the withdrawal of dinner and supper beer, there have been fewer quarrels, discipline has been more easily maintained, work has been better done, and greater cheerfulness has prevailed. Generals have again and again testified to the same state of things occurring when the troops have been unable to obtain alcohol, the men having improved physically, mentally, and morally.

Professor Foster, it is evident, was thoroughly justified in the apologetic statement which he made at the commencement of his lecture, that "on this particular point—the action of alcoholic drinks upon the economy—he had on, the whole, very little to say, and that little was neither very strong nor very definite."

But seeing the terrible mischief and misery, the infamy and the ruin which alcohol inflicts on our countrymen, and, sad to say, to an increasing degree on our countrywomen, the Professor's attitude towards the devastator, alcohol, is to be deeply deplored. It is useless for Professor Foster to plead that he does not defend

the immoderate use of alcohol; he must know that the immoderate use, in the case, not merely of tens, but of hundreds of thousands, is the direct consequence of the moderate use, as they are carried insensibly from one into the other. Had there been no use there would have been no abuse.

It is in the essence of alcohol, just as it is in the essence of opium, to exert a seductive and an ensnaring tendency on those who tamper with the indulgence in them. The majority of persons use alcohol not for any essential benefits they expect to derive, but for the pleasurable sensations it produces, they use it as a luxury. Now, of all luxuries, alcohol is one of the most ensnaring, the appetite grows by what it feeds on. Moreover, the Professor knows that the tendency of alcohol is not merely to stimulate man's lower nature, but to paralyse the higher, and to weaken the reason, whilst it strengthens the passions.

In the discharge of his duties a professor of physiology has unrivalled opportunities of inspiring the young men who come under his care with the noblest aspirations, and of strengthening them by the most powerful safeguards. He might by his own practice powerfully influence their future lives. If for their sake and for his country's sake, if in a spirit of philanthropy and of patriotism he pointed out the uselessness, the perniciousness, and the seductiveness of alcohol; if he advised them on the high ground of national welfare, and from the highest motive of all, reverence for the Great Designer and Creator of man's wondrous organism, to chivalrously fight against the destroyer of the one and desecrator of the other, how much more useful would be his life, how much more honour would he confer on the university to which he belongs, and to the country which gave him birth?

R. MARTIN, M.D.



## THE TREATMENT OF HABITUAL DRUNKARDS.

THE movement in favour of a more rational treatment of habitual drunkards has been advanced a step by the appointment, at the instance of the Lord Chancellor, of a Departmental Committee to consider the subject, but the inquiry, like many others, will be interrupted by the general election that is now imminent. Cases are being constantly brought before police magistrates which illustrate the futility of the system which has been in operation for many years, but there is now a general consensus of opinion, not in medical circles only, that something must be done to remedy the present state of things. At an inquest held on the 11th June, Dr. Norman Kerr, one of our most notable experts on this question, said he had reason to know that the Government



and leading politicians on both sides of the House of Commons were most anxious to deal effectually with this subject. The most practical proposal in his (Dr. Kerr's) opinion was that a prison should be set apart for the reception and treatment of chronic liquor cases where there was no actual crime done; compulsory power of detention should be conceded, and treatment and maintenance should be gratuitous in the case of the poor, for whom at present no provision whatever was made. A memorial from Manchester ministers and others has been addressed to the Departmental Committee praying them to report in favour of an enactment providing that any person who has in a period of two years after the passing of the Act, and in the same licensing district, been thrice convicted of drunkenness, shall in that district be defined to be an habitual drunkard who is not to be served with intoxicants or harboured on licensed premises within that district, and that any licensed dealer who, after due notice, shall serve or harbour such debarred person, shall be liable to penalties and forfeiture of license.

What are the conclusions arrived at through the experience of the Inebriate Acts and other cognate teaching on the subject of Alcoholism? Briefly this: That inebriety is a disease affecting both mind and body, and implying, or involving, a loss of will-power which exempts its victims from responsibility. Some students of inebriety are more emphatic than others in declaring the irresponsibility of inebriates, whether the conduct to which their inebriety prompts takes the form of folly or of crime. But all agree that the condition known as inebriety is an abnormal one; we all know that crime is a frequent result of this abnormal condition, and whether this resultant crime be altogether traceable to disease, or may be partly attributable to vice, it is surely the function of statesmanship to find a remedy for so great an evil. It may be impossible to define the exact point at which the vice of drunkenness passes into the disease of inebriety—we are speaking of those who are contracting the disease of inebriety through indulgence in strong drink—the point which decides whether the homicide shall be punished as a criminal—or treated humanely as a lunatic; but that only makes more blameworthy the indifference with which we look on while drink continues its ravages, and manufactures homicides, wife-beaters, and the disorderlies of every kind who crowd our police-courts. It is an undoubted fact that we have in our midst a large number of inebriates—many who have inherited it, and many who have acquired it—but all of whom are more or less irresponsible for what they do. They are at large, many of them with a tendency to crime, and when crime is committed the plea of irresponsibility steps in and forbids punishment. This condition of things is either an evil

without a remedy, or it is an evil for which the remedy should be promptly applied.

The consideration that is now given to the plea of irresponsibility in the case of inebriates who commit serious offences, is not extended to those who are charged with being drunk and incapable, or drunk and disorderly. Such cases are still dealt with, magisterially, as if the accused had knowingly done wrong; and the almost stereotyped punishment is still "five shillings and costs, in default, seven days." Now it has long been patent to all who have considered the subject, that imprisonment does not cure drunkenness. Indeed, there are many authorities who allege that the policy which sends a "drunk" to prison for a week, gives him for that period a nourishing diet, with freedom from alcoholic liquor, results in his returning to the world so recruited in health, but with his love of drink unimpaired, that he flies to the bottle with renewed vigour, and becomes only more quickly a confirmed inebriate. Be this, however, as it may, we see men and women brought before the magistrates on charges of drunkenness, and against them are read out convictions which are reckoned by tens, by twenties, and even at times by hundreds, and although every new conviction is really a fresh proof of the failure of imprisonment to effect a cure, the law contentedly gives another term—another dose of the physic that experience has "warranted not to cure!" We are an eminently wise and practical people; but in this matter of strong drink capable of the most egregious folly.

Now, who could object to the "drunk," who has three or four times fallen into the hands of the police, being placed in an institution where he could be cared for with a view to being cured? The "liberty of the subject" argument does not apply to the case of one who has forfeited his liberty; and the law which now sanctions detention in prison for seven or fourteen days as punishment, has an equal right to decree seven months, or fourteen months, in an Inebriate Home as a means of cure. It is merely a question of what is best for the "drunk," for his family, and for the community. The Inebriate Acts recognise inebriety as a disease; all concerned in their administration lament the want of compulsory powers of detention; and in the police court "drunks" we have a wide-spreading field, white unto harvest, from which to reap an abundant crop of cured inebriates, if only the requisite powers were granted for placing them under the *régime* of Curative Homes. A tentative effort at cure on such victims of the drink habit as fall into the hands of the police, would help to clear the way for the extension of the Acts to inebriates who do not fall into the hands of the police, but whose condition is not less pitiable.

In urging such a measure as a means of mitigating the miseries

flowing from intemperance, we do not overlook what it involves—a very revolution in society. We have no doubt it would be found that week by week, after the passing of such a law, hundreds of men and women now known to the police as habitual drunkards, and who are now periodically fined or imprisoned, would be committed to the punito-curative institutions which such a law would require to be provided. This would result in thousands of helpless children being left fatherless or motherless or parentless; it would cause many wives to be left without husbands, and many husbands to be deprived of their wives; and in order to provide shelter and succour for the innocent and helpless sufferers, a machinery of humanity would have to be provided of a very complex character.

This is one aspect of the matter, and it is certainly appalling. But against this let us place the blessing to the community of thousands who are now almost useless, or actually dangerous, being placed where they will no longer be dangerous, and where they may be made useful and trained to a life of sobriety and industry. The separation from the mass of society of so large a contingent of humanity that is corrupt, and of a corrupting tendency, could not fail to be a blessing to what remains. As to the inebriates and their families, who can estimate the blessing of such a measure? The inebriate would be dealt with in such a manner as to restore him to the manhood drink was destroying. The family would for a time be rescued from the misery of a drink-blighted home, and be asked to look forward hopefully to the return of the absent one—the demon exorcised that cursed the home, and perhaps an angel of blessing in its stead.

To citizens influenced in any great degree by moral consideration, these advantages would be sufficient to procure assent to the taxation such a scheme of political philanthropy would involve. And for the comfort of the citizen whose soul is in his breeches pocket, let us say that active employment is fortunately an important factor in the cure of the drink habit, and therefore work must be found capable of being carried on within the inebriate “compound”—which might be made to embrace a factory or a forge, a pottery or a grinding mill—and thus the inmates be made to maintain themselves and contribute something towards the support of their families. But in any case the economic aspect of the question should not stand in the way of an experiment being made, for the expense could hardly impose on the taxpayer a greater burden than is now caused by the repeated visits of the “drunk” to prison, and of his family to the relieving officer.



## Miscellaneous Communications.

### ARE INEBRIATES CURABLE?\*

By T. D. CROTHERS, M.D., *Superintendent Walnut Lodge Hospital, Hartford, Conn.*

ANY satisfactory or reliable answer to this question must come from a scientific study of the nature of drunkenness. Fortunately, recent advances of science have furnished many facts and data from which to determine this question, apart from personal opinions and theories.

A very curious chapter of psychological literature could be written on the popular theories of the day concerning drunkenness and its curability. Thus persons who believe inebriety to be a vice and sin, are confident that conversion will cure everyone. Many so-called Gospel temperance advocates claim to have cured thousands of inebriates, and assert with great emphasis that the grace of God through a change of heart will make sober men of all such persons in all conditions of life. Another class believe drunkenness to result from a weak will power, with absence of plan and purpose in life; the great remedy of which is the pledge. The old Washingtonian revival, the Father Mathew movement, and the blue and red ribbon revival wave, are illustrations of the practical application of this theory. The most wonderful success in the cures of drunkards is claimed by the adherents of this method of treatment.

Many persons proclaim that drunkenness is always due to a wilful criminal impulse, which can only be cured by punishment and suffering. They would have laws for more severe punishment, establish the whipping-post, confine drunkards in dungeons in irons on bread and water, and finally use capital punishment. Curiously the believers of this theory cite examples

of its practical value in the cure of many cases.

It is clear to many people that the prohibition of alcohol will cure drunkenness effectually. Others assert that drunkenness is a mere stomach trouble, and that specific drugs will destroy the appetite; also, that by treating this appetite to excess of spirits in everything used a permanent repugnance can be created. A large number of cures are said to be made by these methods.

The drug specific treatment is now quite prominent, but, as in many other matters, the results are subjects of faith rather than demonstration.

These and other theories are proclaimed from the pulpit, platform, and even in the court room, and are scattered broadcast in journals, tracts, and books; and yet all competent authorities agree that drunkenness is increasing. Some reasons for this are apparent in the legal method of curing drunkenness. The fines and short imprisonment, supposed to stop all further use of spirits, produce the opposite effect, and intensify all the conditions which impel the drunkard to drink.

Statistics show beyond doubt that the station-houses and gaols are more dangerous and destructive than the saloons; that 98 per cent. of all inebriates who are punished for the first time by fines and imprisonment, are re-arrested for the same offence continually until death. There is a grim irony in the method of cure that makes recovery more and more impossible, and finally completely destroys the victim. Evidently as long as the drunkard is regarded from the moral side alone, and judged by the theories urged a thousand years

\* Read before the American Society for the Study of Inebriety, January 24th, 1892.



ago in explanation of his condition, his curability will be doubtful and exceptional.

Another very curious chapter might be written on the spasmodic efforts, through parties, societies, and agitations, to arouse the public to use some curative measures for drunkenness. The literature of these movements comprises the strangest compound of errors and misconceptions, that are repeated without a question or doubt of their reality. Take the established facts concerning alcohol, they could all be put on a single page, and yet hundreds of volumes and pamphlets have been written on this topic, and these do not include all. A dozen different text-books are published, to teach the action of alcohol to school children. Hence it is almost impossible, from any comparison of theory and practice, to form any conclusions as to the actual curability of drunkenness. The scientific student must begin his inquiries without support from present knowledge, and aside from this mass of opinion and theory.

He must approach the subject entirely from the physical side, and seek to ascertain what drunkenness is, its causes and character, and why alcohol or other narcotics are used so excessively, and beyond all limits of reason and self-preservation. When these facts are understood, the question of curability can be answered. The scientific method to be pursued in this study, is the same as in all other physical problems. First, gather and tabulate the histories of a large number of inebriates, then make comparative studies of these records, and ascertain what facts, if any, are common to all of them. The history beginning with the individual, should extend back to his parents and grand-parents. Giving accurate details of all family diseases and accidents, and diseases which have appeared in different members of the family; also their habits of living, and occupation; their successes and failures in life; their character, conduct, surroundings and longevity. To this add the history of the collateral branches and near relatives up to the present.

Then, coming to the individual, record all the facts of his birth, and the condition of his parents prior to his birth; his early childhood, diet, diseases, occupation and surroundings, and the culture and care received. Also all the accidents, diseases, nerve, and muscles, strains, shocks and failures, his training, surroundings, and all the facts of his life up to the onset of his drink history; the circumstances attending the first use of spirits, and its effects upon him, his habits and modes of living, together with all the circumstances of his life, its failures and successes, the effects of alcohol and its influence over his daily life, and all the other facts of his history. While the accuracy of many of these facts may be difficult to secure, certain general principles will appear, which must have been followed or preceded by certain minor facts, either known or unknown. The more exhaustive the facts are, the more accurate the conclusions. From a grouping of a large number of such histories, a startling uniformity in the causation, development and termination appears. Literally the same causes, the same surroundings and conditions appear in nearly every case. To illustrate, heredity as a causation appears in over 60 per cent. of all inebriates. The parents and grandparents have been continuous or excessive users of spirits, or have been insane or mentally defective, or have been consumptive, or had rheumatism, gout, or some other profound constitutional disease, before the birth of the child. These physical states have been transmitted, and burst into activity from exposure to some peculiar exciting cause. In 20 per cent. there will be found the same history of disease and injury preceding the use of spirits. Thus, blows on the head, sunstrokes, railroad accidents, and injuries which have caused stupor or periods of unconsciousness, or profound wasting diseases, from which recovery has followed, and with it the use of spirits, which sooner or later developed into drunkenness. Mental shocks from grief and joy or other profound emotional strains, are fol-

lowed by an intense craving and drunkenness. Ten per cent. will give a clear history of brain and nerve exhaustion, preceding the inebriety. In 5 per cent. bad sanitary surroundings, bad living and diet have been the exciting causes, and in a small percentage the causes are obscure and unknown. These are some of the most prominent facts appearing from a comparison of the histories of a large number of cases. Many of the causes are combined in one, such as heredity, bad surroundings, brain exhaustion or brain injury. In some cases, old heredities appear in the second generation, or peculiar nerve injuries that develop into inebriety.

Another fact appears from these histories equally startling, viz.: the uniformity of the progress and march of each case. A certain progressive movement is noted along a uniform line of events, that can be anticipated and predicted. Halts, diversions, and apparently retrograde movement, may occur, but the large majority of all drunkards begin at a certain point, and march down the same road, cross the same bridges, and arrive at the same termination. To find where the case started and where it is at present is to find accurate data from which to predict the future with much certainty.

Drunkenness often takes on the form of periodicity, in which the use of spirits occurs at distinct intervals. These drink storms, like epilepsy, are followed by a free interval of health and sobriety. During this free interval the victims display mental vigour and great resistance to all exciting causes, then suddenly relapse, and use spirits to excess for a fixed time and recover. Such cases exhibit a strange cycle-like movement, coming and going at exact intervals that are uninfluenced by circumstances or conditions. Some are solitary midnight drinkers; others only drink at certain places and at certain times and seasons. Many curious and fascinating facts that are not understood, appear in the history of this class, and suggest a range of causes, yet to be studied.

Such are some of the general facts which are found to be uniformly pre-

sent in most cases, and which indicate beyond question that drunkenness is a disease. The mental degeneration and obscure forms of physical disturbances, associated with a craving for spirits that dominates every consideration of life, point to a form of insanity, in which both the brain and nervous system appear to suffer from paralysis and exhaustion. The use of spirits may cause the paralysis and favour the exhaustion which proceeds from it. Intoxication exhibits in a concentrated form the commonest types of insanity, mania, melancholia and dementia, in a brief time. The injury from these states must be very great, and the inference that the demand for spirits is often a symptom and not the disease, is amply confirmed.

From these and many other facts the curability of drunkenness becomes a question of the application of scientific measures and means to conduct or assist the case back to health again. The condition to treat is that of progressive brain and nerve exhaustion, lowered vitality, with damaged and perverted functional activities. The removal of alcohol does not remove the disease, but only one exciting or predisposing cause. Gaols isolate and prevent the drunkard from procuring spirits, but experience shows that forced abstinence alone often intensifies the drink impulse, and increases the incurable condition. Something more is required. Enthusiastic appeals to the emotional powers and will are not curative, because the emotions and will are diseased; the higher moral faculties are perverted and cannot act normally. The drunkard has been switched off the main line of healthy life and living, upon the side-track of progressive dissolution, the opposite of evolution. The question is, what means and appliances can bring him back to the main line of health; can the will power, or prayer, or any specific drugs, or appeals, or threats do it? Are there any agents along the lines of the marvellous or any miracles that will save the drunkards? The laws of dissolution are as fixed and certain as those of evolution, and the change from the

one to the other must be along the line of physical laws and forces, that move without a shade or shadow of turning. The curability follows from the application of certain general principles, the first of which is the isolation and change of surroundings. The drunkard must go into a quarantine, where all the external conditions of life will antagonise his disorder, and assist nature to return to health. In a quarantine station, or special asylum, the diet, baths, exercise, medical study, and care, with all other means, can be applied with military exactness. Each special phase of disease and form of degeneration can be treated from its particular symptoms with particular remedies. Nerve and brain rest, the restoration of all the organic and functional activities, can be obtained by means under the care of the medical man. Thus, the drink impulse is overcome and dies away with the increasing vigour of the mind and body. Like insanity, drunkenness is cured, not by drugs alone, but by building up the body, through all the long avenues of nutrition, healthful exercise, regulated mental and physical surroundings, and appropriate drugs. Drunkenness must be recognised as a disease legally, and the victim forced into conditions where he can live along the best sanitary lines of health; where medical treatment and control can be exact and perfect, and where physiological and hygienic training in its broadest and best sense can be applied. The details of the application of these principles will suggest themselves to every one. These principles were suggested for the treatment of drunkenness nearly two thousand years ago, but only recently have they received any special attention. Thirty years ago the first pioneer asylum for the application of them was opened at Binghampton, New York.

A furious wave of opposition eventually destroyed it, but the truth which it exemplified was above the superstition and prejudice of the hour. Today there are over a hundred asylums and houses in the world for the treat-

ment of drunkards from the physical side. Notwithstanding the storm of opposition which greets every new advance in science, and which in this case is not over yet, the success of the asylum treatment has opened a new pathway of great promise for the future. Public sentiment still denies the disease of the drunkard, and legislatures refuse to give legal power of control; and asylums for inebriates must go on as private enterprises, opposed by superstition, with limited appliances or experience, and treat only the most incurable cases, who come to them as a last resort, and from a forced necessity. The wonder is that any success should follow their crude efforts, and yet the statistics of the largest of these asylums indicate a degree of curability that could not have been anticipated. The first statistical study was made at Binghampton, in 1873. Inquiries were made of the friends of fifteen hundred patients, who had been treated five years before at the asylum. Of eleven hundred replies, 61 and a fraction per cent. were still temperate and well, after a period of five years. It was a reasonable inference, that if 61 per cent. were still restored after this interval, a large percentage would continue so through the remaining life. Another study of two thousand cases was made at Fort Hamilton, N. Y., which revealed the fact that 38 per cent. of these cases remained temperate and sober, after an interval of from seven to ten years from the time of treatment. In the returns of three thousand cases studied at the Washingtonian Home at Boston, Mass., 35 per cent. of all the living persons who had been under treatment from eight to twelve years, were temperate and well.

In many smaller asylums, both in this country and Europe, where the number studied were limited to a few hundred or less, and the interval or time since the treatment was from four to eight years, the number reported as free from all use of spirits ranged from 32 to 41 per cent. While these statistical facts are not to be considered as final and conclusive, because they do not extend over a sufficient length of time from



the period of treatment, or include a large number of cases, they are full of hopeful possibilities, and indications that cannot be ignored. In view of the fact that many of the asylum cases are largely incurable, and since the faults and imperfections in both the building and management of asylums are unavoidable at present, the curability of drunkenness by this means is more certain than in any other way.

The same principle obtains as in insanity—the more recent the case, the more curable; the more complete and thorough the appliances, the greater certainty of cure. These estimates of cure are sustained by all accurate observers, in both Europe and this country, and have become the starting point for most enthusiastic work by many pioneers.

[It is a reasonable inference that if one in every three can be cured by the present imperfect methods, a much larger proportion will be restored to health by the improvements and better institutions of the future. It is evident that a large number of all criminals, insane idiots, and defectives, come from the ranks of incurable drunkards. If such degenerate cases could only be housed and kept under sanitary control, a visible lessening of those defects would follow. Many other facts sustained the opinion that all drunkards, both recent and chronic, should come under legal control and be put in quarantine asylums, until cured, or be retained for a lifetime. The practical workings of such asylums are assured in many ways, as well as the fact of the curability of a large number of cases, that are literally made worse by the present blundering efforts to improve them. These scientific methods of curing drunkards may be summarized as follows: First, legislate for their legal control, then organise industrial hospitals in the vicinity of all large towns and cities. Tax the spirit traffic to build and maintain such places, just as all corporations are made responsible for all the accidents and evils which grow out of them. Arrest and commit all drunkards to such hospitals for an indefinite time,

depending on the restoration of the patients; also commit all persons who use spirits to excess and imperil their own and the lives of others. Put them under exact military, medical, and hygienic care, where all the conditions and circumstances of life and living can be regulated and controlled. Make them self-supporting as far as it is possible, and let this treatment be continued for years if necessary. The recent cases will become cured and the incurable will be protected from themselves and others, and made both useful and self-supporting. Who can fully estimate the benefits to society, to morals, and to civilisation, by promptly isolating such persons and keeping them in normal states of living? Who can estimate the relief to the taxpayer by the removal of the perils to both property and life from drunkenness? This is not a theory, but a reality, only awaiting practical demonstration, when the superstitious opposition of public opinion dies away. The time has come to look at this problem in its true light.

The curability of the inebriate is far more certain than that of the insane. The liberty of both is equally dangerous; one is recognised, the other is seldom restrained until he becomes a criminal. The moment a man becomes a drunkard he forfeits all rights to liberty and becomes a ward of the State, and should be controlled by it. It is dense ignorance that permits any one to destroy his life and property by drink on the supposition that he is a free moral agent. The inebriate is mentally and physically sick, and needs the same help as the insane, and the question of care is simply one of adequate means and remedies to reach the disease. The few pioneers working along these frontier lines of research, looking beyond the dust and conflict of temperance agitation, are fully confident that not far in the future the inebriate will be recognised and cured; and the mysteries of the great drink problem will disappear before the march of scientific truth. —*New England Medical Monthly*, March, 1892.



## ALCOHOL AS A MEDICINE.

By PROFESSOR A. MCDIARMID, M.D.

THE following paper was read before the last meeting of the Manitoba Alliance by A. McDiarmid, M.D., Professor in the Manitoba Medical College.

I have been entrusted by your committee with the duty of leading in the discussion of this important subject. Let us approach this task by first divesting our minds of all prejudice which may naturally be assumed to exist among temperance advocates. Alcohol has long been used as a medicine, and is extensively so used at the present day. Among the recognised leaders of medical thought and opinion it has many staunch advocates, and a certain number who as sternly avow that it has no legitimate claim to therapeutic usefulness. During the last few years it has been the subject of most elaborate experimental research with a view to determining what changes, if any, alcohol undergoes in the human organism and what are its physiological effects. The results of these experiments have been in some measure contradictory, owing to variations of condition and circumstance; for example, when made upon healthy young men or upon hospital patients, the subjects of disease. The physiological effects claimed for alcohol are chiefly: 1st, as food; 2nd, as a stimulant; 3rd, as an anti-pyretic (reducer of body temperature).

1st. Let us first examine its value as a food. We must regard as food not only the building material but all substances which, by their combustion in the tissues, afford warmth to the animal organism, and by so doing contribute towards the production of vital force and keep up the powers of endurance. Alcohol belongs to that class of foods which do not become an integral part of the living cells; it does not contribute to form muscle, nerve or bone. In small and frequently repeated doses, however, it is readily assimilated, and, becoming diffused throughout the system under-

goes combustion within the tissues of the body, imparts warmth to them, and yields vital force for the performance of their functions. In its chemical composition it resembles the oils and sugar, being composed of carbon, hydrogen and oxygen. Its carbon and hydrogen are burnt up or oxidized within the system, forming  $\text{CO}_2$  and water. Prof. Binz, of Bonn, who has studied this question with great industry and success, has calculated how much energy is contained in a gramme of alcohol, and finds that two ounces of absolute alcohol yields about the same amount of warmth to the body as is supplied by an ounce and a half of cod liver oil. The subjective impression of increased warmth usually experienced after taking a dose of any alcoholic liquid is deceptive, and is only due to an irritation of the nerves of the stomach, and to the increased circulation of blood through the cutaneous vessels. This latter effect is of a reflex kind, as also the increased activity of the heart and brain. All these phenomena are delusive, being not a manifestation of vital, but the result simply of irritation of the nerves of the mucous membrane of the stomach, whilst it is itself thus oxidized in the tissues. Alcohol unquestionably interferes with the metabolism or oxidation of other substances, especially (it would appear) saving or sparing the wear and tear of the tissue proteins or formed protoplasm of the cells. As a consequence of this diminished oxidation the temperature falls, and the albuminous tissues which do not waste tend to degenerate into fat, so that the body as a whole grows fat and gross. Small doses are said to aid digestion, but large doses precipitate the pepsin and impair the digestive functions.

2nd. As a stimulant. The popular term of stimulant, as applied to the various prescriptions containing alcohol, is apt to mislead. If alcohol be regarded as a true narcotic, like

chloroform, ether, or in some respects opium, much of the difficulty of comprehending its action will disappear. Narcotics at first cause a period of stimulation or excitement, afterwards followed by sleep and coma; and alcohol differs from the substances first mentioned only in degree, its period of excitement happening to be more prolonged. There is increased activity of the circulation of the blood, partly as we have seen as a reflex effect from the mucous membrane of the stomach, and partly also as a direct effect; the alcohol affecting the nerve muscular structures of the heart, the cardiac centre (in the brain), and the nerve muscular tissue of the blood-vessels. The first effect on the nervous system is also one of stimulation, the nervous centres are increasing in vigour from the highest to the lowest. The imagination becomes brilliant, the feelings are exalted, the intellect is cleared, the senses become more acute, the feeling of bodily strength and ability is raised, and some of the appetites are temporarily excited. The centres of speech and of muscular movements generally are specially exalted, giving rise to animated talk and lively gesticulations. Unfortunately, however, if the dose be larger, these phenomena of stimulation, at first more pronounced, soon give place to depression succeeding in the same order from the highest to the lowest centres of the brain cord. The intellectual, emotional, and voluntary faculties become first inordinate, then dull, and finally completely arrested; the muscles are first ataxic, then paralysed, so that after an unsteady, staggering gait, the erect posture is impossible, while the consequent depression of the respiratory and circulatory centres leads to stertorous breathing, circulatory failure, and even death.

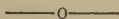
3rd. As an antipyretic. The bodily temperature is on the whole lowered by alcohol (this, however, is denied by some therapeutists); this is effected in four different ways, (1st) by increased circulation through the dilated superficial peripheral vessels, particularly those of the head, in consequence of which a larger surface of blood is

exposed, and the loss of heat by going into the air is increased; (2nd) by increased perspiration; (3rd) by diminished metabolism or oxygenation of the tissues; and (4th) after large non-medical doses by general depression. The sense of warmth is, on the contrary, increased by the flushing of the skin with blood—a condition which promotes bodily comfort in a warm or moderately cool atmosphere, but causes rapid refrigeration, general vital depression, and possibly death, when surrounded by a cold atmosphere. Hence a human being is much more liable to be overcome by exposure to cold while under the influence of alcohol. Time will permit me only to mention other physiological effects, viz., its narcotic or sleep-producing power, and the peculiar property it possesses, in common with certain other drugs, of creating a craving for itself, which is even transmissible from parent to child.

Having now seen its three chief physiological effects, let us consider its therapeutic or medicinal uses. Alcohol is employed in fever and other acute wasting diseases, such as delirium tremens and acute mania. In these conditions it is used with a view to the three before-mentioned physiological effects; 1st, to prevent or make good the great waste of tissue associated with the disease (a meat producer or food). 2nd, to sustain the heart or nervous system which threaten to fail (a stimulant); and 3rd, to promote loss of heat or reduction of the fever (an antipyretic). Now, is there not a direct antagonism of purpose between the first and the last of these efforts? We use it, we say, to supply fuel (food), and at the same time to reduce the temperature of the body. Would it be any more irrational for the caretaker of this building to fill the stoves with fuel and then to open all the windows. This building, on this cold night, would be no more habitable than if he had left the windows closed and put no fuel in the stoves, indeed far less so. What would you do with a caretaker who would adopt such methods and practice such extravagance with your fuel?

You would at once dismiss him. Alcohol, we say, furnishes an easily combustible fuel, but it practically opens the windows by dilating the superficial blood-vessels and exposing the blood to the cooling action of the atmosphere. I think we can afford to dismiss it too, and rely on other foods that do not open the windows? This food is in every sense far too expensive. I once had faith in it as an antipyretic, and I still accord it some value in that regard; but during the past five years the discoveries in the field of organic chemistry have afforded us other agents infinitely superior. As a stimulant only then would we consider it of any practical value, and then only for the purpose of bridging over a temporary crisis, as in threatening death from heart failure. Dr. Whitlaw, of Belfast (a brother of our own Mr. Whitlaw), a well-known authority in a work on therapeutics, concludes as follows: (1st). That alcohol is not necessary at all in the majority of cases; (2nd), that often the most unpromising cases pull through without it; (3rd), that in severe cases it cannot safely be withheld from those habituate to it; (4th), that it is rarely, if ever, needed in the very large doses prescribed by some. The following words of Sir W. Jenner deserve ever to be borne in mind. "For the last thirty years," he remarked, "I have made it the rule of my practice in the treatment of typhoid fever to abstain from giving alcohol, if in the case before me I doubted the wisdom of giving it. When in doubt I do not give alcohol in typhoid fever, and when there is a question in my mind of a larger or smaller dose I, as a rule, prescribe the smaller." Dr.

Griffith, of Philadelphia, expresses the opinion that alcohol should not be used where other equally efficient remedies can be substituted. There is nothing he knows of more satisfactory in medicine than the treatment of fevers without alcohol in any shape. The *British Medical Journal* of March last essayed a criticism of the results of the London Temperance Hospital, indicating that while the results there are good in the surgical department, recovery is apt to be too long delayed in medical cases treated without alcohol, and patients often die from exhaustion after a very lingering sickness. On behalf of the trustees of the hospital appears an answer from the pen of Rev. D. Burns, D.D., claiming that this method of criticism is unfair, and that the hospital's results for a series of years should have been studied, this would show that out of sixty-six cases of typhoid fever treated without alcohol up to 1886, sixty-one had recovered. Greely's experience with liquors in arctic latitudes corroborates the well-established views regarding the physiological action of the drug. It was found that when spirits were given while the men were on the march the power of resistance to cold was impaired, but that when taken in small quantities after the day's work was over, there was a distinct stimulation of the mental faculties. To my mind even were alcohol proven the most valuable drug we possess, its use in medicine would afford no argument in favour of its use as a beverage in health, any more than the usefulness of opium as a remedy affords a pretext for its employment in the debauchery of the opium habitue.



TREATMENT OF INEBRIETY IN GERMANY.—The third annual report (1891) of the asylum for inebriates at Ellikon states that there were 151 applicants, forty-eight of whom (forty-one men and seven women) were admitted. Of these forty-one were discharged, twenty-three of whom have remained abstainers up to the date of the report, while eleven drink moderately, and six have relapsed. These figures are more encouraging than those for 1889 and 1890, which show 35.2 per cent. of total abstainers, 29.6 of moderate drinkers, and 35.2 of relapses. —*British Medical Journal*.

## THE ABUSE OF TONICS.

By J. H. KELLOGG, M.D., *Battle Creek, Mich., U.S.*

THERE is perhaps no class of remedial agents more abused than tonics. The abuse consists both in the excessive use and the misapplication of this class of agents which, within a restricted field, possess an indisputable and important therapeutic value. The misuse of tonics is doubtless the outgrowth of a misconception of the real nature of this class of remedial agents and its limitations. Many physicians also seem to lose sight of the fact that tonics are, as has been aptly said of drugs in general, two-edged swords, which are as capable of mischief as of benefit. Indeed, when the true nature of tonics, as is true, in fact, of most medicinal agents, is thoroughly understood, it is apparent that even in cases in which they accomplish the maximum of benefit, there is also a certain amount of injury inflicted upon the organism, so that the effect obtained is really and simply the difference between the mischief done and the good accomplished. If the difference is on one side, the total result is benefit; if on the other side, the result is harm. This principle holds good with regard to most remedies, whether the means employed is a drug or a non-medicinal agent.

The popular idea of a tonic is well expressed in the following definition, which we find in the National Medical Dictionary: "An agent which augments gradually and permanently the strength and vital activity of the body or its parts." A stimulant is defined by the same authority as being "an agent which increases the functional activity of any organ or series of organs." The distinction made seems to be that a stimulant produces temporary excitement, whereas a tonic produces a permanent increase of strength and vital activity.

A careful study of the physiological effects of the various stimulants and tonics very clearly shows that upon the point in question there is really no difference whatever. The only

way in which strength and vital activity can be really increased, is by an increase of the metabolic processes of the body. Alcohol and strychnia may be taken as good representatives of the two classes of drugs named stimulant and tonic. What is their effect upon the metabolic processes of the body? The experiments of T. Lauder Brunton, and others, have shown conclusively that both alcohol and strychnia lessen oxidation in the system. In the case of both drugs this is due to the toxic effect of the drug upon protoplasm. The metabolism of the body depends upon oxidation. Without oxidation there can be no tissue change and no evolution of energy. How then can an agent which lessens oxidation produce a permanent increase of strength and vital activity? Here is a paradox which no writer upon therapeutics has explained.

Alcohol produces an apparent increase of strength; we say apparent, because the experiments of Parkes and others have shown that the actual amount of work done by a person under the influence of liquor is less than without it. That the effect of alcohol (which is essentially the same as that of other stimulants) is only that of excitation, an effect which is very transient in its influence, was well shown by experiments made upon the soldiers of the British army during the Ashantee campaign. It was found (quoting Lauder Brunton, *italics ours*) that "when a ration of rum was served out, the soldier at first marched more briskly, but after about three miles had been traversed, the effect of it seemed to be worn off, and he then *lagged more than before.*" These experiments, as well as many other similar ones, show clearly that the effect of a stimulant is simply to increase the evolution of energy, but not to replenish the sources of energy in the body. In connection with the experiment referred to, experiments were also made in the use of beef tea,



which were shown, to use Dr. Brunton's words, "to have as great a stimulating power as rum."

Now what is the effect of strychnia? Again quoting Dr. Brunton, who is as good authority as can be mentioned in connection with the subject: "The most marked feature in the general action of strychnine, is the great increase which it produces in the *reflex excitability* of the spinal cord and other reflex nerve centres. . . . When the dose is large, this increase is so great as to cause convulsions and death. . . . The drug lessens oxidation of protoplasm and oxidation taking place in the blood." It is evident, then, that strychnia lessens the process by which energy is naturally developed within the body, while at the same time increasing the excitability of the nerve elements, and thus leading to an increase in the expenditure of the energy stored up within the body. In other words, strychnia, like alcohol, increases the expenditure of energy, without increasing its production, but, on the contrary, lessening those tissue changes upon which the development of energy depends. It is also noticeable that the effect of strychnia, when used in small doses, is precisely the same as that produced by doses sufficiently large to produce death, only less in degree.

A careful study of the matter will convince any candid person that the only real difference between the drugs called stimulants and those called tonics, is, that the reaction following the excitation produced by those called tonics, is less immediate, and hence less apparent than in the case of those drugs which are termed stimulants. One reason for this, in the case of strychnia, is in the fact that the drug is slowly eliminated. This characteristic of the drug should always be kept in mind in its use, since it gives to strychnia a cumulative effect which sometimes results disastrously through the failure of the kidneys to eliminate the poison with the usual degree of activity. Strychnia seems to be one of the most lethal of drugs, in consequence of the fact that the only outlet for the poison is through the kidneys.

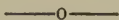
One of its most marked properties, when taken in a large dose, or when its cumulative effects are experienced, is to cause contraction of the arteries of the kidneys, thus lessening their activity, and, in extreme cases, causing complete suppression of the renal functions. A case recently came under our professional care, in which convulsions had been produced by ordinary medicinal doses of the drug, doubtless the result of lessened activity of the kidneys.

A ready resort to tonics in the great variety of cases in which there is lack of energy, lowered nerve-tone, mental or physical depression, weak digestion, sexual weakness, and similar morbid conditions indicating low nerve-tone, is often productive of the greatest mischief. Suppose, for example, a man is suffering from depression as the result of excessive work, either mental or physical: a tonic preparation containing strychnia or nuxvomica will give him increased power of activity; in other words, by increasing the excitability of the nerve-cells of the brain and spinal cord, the disposition for activity is increased, and consequently the patient not only continues his over-work, but may actually increase his daily expenditures of energy. What must be the necessary result? The drug administered diminishes oxidation, and hence lessens tissue-change and force-production, while at the same time, through the deceptive sensation of increased capacity for work which it produces, it is increasing the amount of force expended. There can be but one result; sooner or later the patient finds himself completely bankrupt in energy, and in a worse condition than before. The writer's professional experience has brought him in contact with a large number of just this class of cases. The patient had hoped much from every tonic employed, including the use of strychnia, which had often been pushed almost to the point of actual poisoning, and the constant observation has been that no real headway was made toward *permanent* recovery, so long as the patient was kept in a state of artificial

excitability by the use of tonics. The bad effects of this unscientific method in therapeutics is most apparent in cases of sexual debility, in which strychnia and other powerful tonics have been used for their aphrodisiac effect. Under the influence of the drug, the patient is made to believe that his sexual powers have been fully restored, and is thus led to further indulgence of the very kind which has led to his diseased condition.

In the case of mineral tonics, the slowness of their elimination is often a source of great mischief to the system. Mercury, which in small doses is held to be a tonic, iron, and all the metallic salts, are to a considerable extent taken out of the general circulation and stored up in the liver. The same occurs in a lesser degree in some other structures of the body. Doubtless great mischief sometimes results to the liver through this fact. An inactive liver is not likely to be greatly benefited by the accumulation within its structures of a mineral substance which, in the case of mercury, at least, must be highly detrimental to the vital activity of the cells. The vast quantities of iron used in this country, as a tonic, must be responsible for an enormous amount of liver inactivity.

The fact is indisputable that great mischief is done to vast numbers of patients through reliance placed upon tonics as a means of restoration to health. Tonics are sometimes undoubtedly useful as a means of temporarily relieving conditions of depression, especially when the depression is of such a nature as to cause the patient to become dispirited and melancholy; but when used in such cases, the reliance upon the tonics should only be temporary, and the greatest care should be taken to see that the causes which have induced the depressed condition are removed, otherwise the tonic will be likely to do more harm than good. Restricted by this rule, the use of tonics would be reduced so greatly that the great majority of the long list of remedies named would probably disappear from our *materia medica*, and the few remaining ones would seldom be resorted to, since through a removal of the cause, most of the patients would recover without resorting to remedies which are the most abused, and we think we might almost say, the least needed, of all rational therapeutic agents.—From the *Bacteriological World and Modern Medicine*, March, 1892. Edited by Dr. J. H. KELLGG.



### THE CASE FOR ALCOHOL AGAIN.

"BLACKWOOD'S MAGAZINE" opens its pages to Dr. Farquharson in the interest of time-honoured moderation. It stands by the old ways, and does its best for "the case for moderate drinking." The worthy writer, who has the courage of his opinions, and is withal good tempered, draws largely on his experience. Whether that has been of the most favourable kind for sound conclusions may be doubted. The social life with which he has been familiar, abroad or at home, or in the House of Commons, seems to have been somewhat convivial, and one can believe that he has been less in the company of total abstainers than

might have been expected from so genial a man. The consequence is that his impressions of temperance sociability and temperance men are rather sombre. It is related of a once famous sceptic that he complained to an ecclesiastic that the most of the Christians he knew were very gloomy persons, to which the divine replied that the complainant probably associated with very few Christians, and besides, that the sight of him was fitted to make a Christian gloomy at any time. Perhaps in some such way the state of mind of the champion of moderation may be partly accounted for. Yet we cannot help thinking him

anxious to be fair; and his serious mind is seen behind his more jovial. He feels bound to speak strongly of the evils of intemperance, and to warn against various perils of moderation. So far does he go in this way as to furnish weapons of self-confutation. In truth, the sum of his practical counsels for safe drinking are, like those of Dr. Mortimer Granville, rather too fine for use. He seems to concede the temperance position when he says, "Total abstinence is a definite thing. No one has yet been able to define moderation." Even "two ounces of alcohol may be too much for some people," and he advises, "in a general way," that each regulate his own proper quantity for himself. In like manner each must choose his own liquor. On one thing he insists, that alcohol should only be taken with food. "Shun, as you would the Evil One, all rash nips and casual drinks; let no sherries and brandies-and-sodas between meals tempt you from your rule, but mix all your liquor with food, which shields the tissues from its contact, and aids its safe dispersion through the circulation. Then either take weak wines, or, if they must be stronger, dilute copiously, and be careful to correct the acidity of some of the more highly alcoholised beverages—which interferes with salivary digestion." Dr. Farquharson allows of some exceptions to the restriction of alcohol to meal times. If a man is wetted, or chilled, he allows of a smart little nip to whip up his heart; or if a man is over-tired and sits down to dinner without restful pause, he may be permitted, as in India, a little preliminary stimulant to restore lost nervous energy and help him to enjoy and digest his meal.

In truth, Dr. Farquharson becomes in his anxiety all things to all men. Logically he leads you to total abstinence in one sentence, practically away from it by a dozen concessions in the next paragraph. He formally traverses the arguments against moderation, which have been so often searched and refuted by specialists as well as moralists and scholars for

more than a generation. He trots out the case of Timothy's stomach without throwing any light on the diagnosis or on the prescription. This is the only scriptural reference in which he indulges, save, not quite accurately, "A little wine maketh glad the heart of man." He does not quote "Look not on the wine when it is red," or "Wine is a mocker," &c. Port wine, he tells us, is good for consumptive boys and atrophied children. He does not mention the case of Pitt, who was reared on it, as Lord Rosebery narrates, and who consumed quantities in later life "surprising in those days and incredible in these." These were days when seasoned toppers occupied high places, and the Scottish patron only stipulated that the ministers whom he chose should be "good-natured in their drink." Dr. Farquharson would, of course, condemn this as "excess," but he has no ground in argument when he admits the rule of idiosyncrasy. These men were moderate after their manner and their times. Their experience only illustrates the overlooked and unsuspected operation of the alcoholic seduction upon the most capable men, as may be seen to-day in all scenes of life. The excellent member for West Aberdeenshire has only to look around him to find strong men self-victimised by alcoholic indulgence. He must know many spoiled careers and damaged characters, owing to the course of moderate drinking which he seeks to vindicate, and he can hardly fail to suspect that, after all, there is a quality in strong drink which makes it unfit to be the beverage of man, and the accompaniment of convivial hours, or even the instrument of hospitality.

It is rather pitiful for guests to be so dependent as the doctor pictures diners-out to be, on "the beaded bubbles winking at the brim" for stimulus to neighbourly words. The teetotal banquet he describes—with its solemn frigidity, voracious feeding, and evident desire to escape to smoke or drink coffee—is a rather gross caricature. It is barely possible that there may be some unmannerly persons who



think it their duty to be dull and disagreeable in resentment of teetotal usage, or who unconsciously show how miserable they are without their usual means of indulgence at the table of a kind hostess; but these are exceptions to the rule of modern courtesy which recognises the higher ends of social intercourse, and the subordination of the mere gratifications of the palate to refined neighbourliness. A man may eat and drink in his private circle as conscience allows him, but in the wider fellowships he is present as a gentleman to look not only to his own desires, but to consider the circumstances of his host and his company. No host or hostess, from royalty downwards, would seek, directly or indirectly, to enforce drinking usages on a guest, and no guest of honour in any scene, of life higher or lower, would wound the feelings of a host or hostess by cultivating the looks or gesture of misery at table. One or two abstainers making a general company "dreary and depressed, as flat as the cold water they metaphorically throw on their neighbour," is a spectacle which Dr. Farquharson thinks he has often observed. Whether this arises from his sensitive fancy, or whether the presence and actions of the doctor really make good people melancholy, we shall not determine. We believe the practice of abstainers in mixed society to be observable, and beneficially so, but it can be offensive or depressing only to those who are otherwise ill at ease. "The richness and roundness and fulness of life" are not dependent on alcoholic airs, and those who, like Dr. Farquharson's friend keeping Lent in misery by cutting off his grog, can only enrich and round and fill up their life by the bottle, are poor indeed. Lemonade and Apollinaris water seem to the Doctor inadequate helps to social intercourse. This may be admitted. Water from the spring itself is not enough for this. Alcohol is least of all an aid, with its background of woe, and sorrow, redness of eyes, and wounds without cause. But social intercourse depends not on the best of adjuncts. It is due to mental and

moral conditions, easily satisfied as to material accompaniments. Simple fare, a draught from the spring, "a muffin and a cup of tea," will suffice, with a kind heart, a spirit of courtesy and neighbourly interest, to sustain the intercourse of society in any reasonable circle to the best advantage.

Dr. Farquharson believes in the stimulating uses of alcohol in poetic and literary production, and cites the dinners and suppers of poets, orators, and others, ancient and modern, in evidence. This we take to be sheer unadulterated nonsense. It is true that men can be found who, like Sir Gibbie's father, whom George MacDonald so vividly depicts, pray when they are drunk, as there are and have been writers and speakers who have written and spoken in their drink; so they have also done in fever or with otherwise disordered faculty. But what does this prove? It will not show that they could not have done equally well or better unalcoholised, or that they have more staying power in drink than without. We venture to say that little of the oratory or literature that lives or is likely to live was produced otherwise than in the sobered hour of high thought and review. Who has not read of the miscalculated doses of some waiting orator, or of the sudden call from table of Pitt to reply in the House with visibly disordered powers? We are willing to go with Dr. Farquharson from Horace to Tennyson and challenge scrutiny of all literature, and shall leave him to choose between the offspring of alcohol and the fruit of healthy powers. Even the praisers of drink have written their best of it in perverted sobriety.

Our writer contends for the use of alcohol as sedative and tonic, as well as stimulant, and forecasts a future of the animal race when "the alcoholic constitution shall have been generally introduced." He argues that the masterful races and nations have been the alcohol-using; that alcohol appears to arrest zymotic diseases; that it is a digestive or an actual food, and unless we run on into excess,



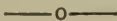
it can do no harm to our tissues. "It does us good, and can do us no harm. Then why not use it?"

As many errors may be packed in a sentence as only volumes could refute. It is so in this article of Dr. Farquharson. We only say that does not look like a food which needs food to be mixed with it, as he argues, to "shield the tissues from its contact," and "aid its safe dispersion through the circulation." The language used by science which Dr. Farquharson uses and appreciates, gives us rather the idea of alcohol as an enemy entering the system which all arms are employed to expel. In his most serious strain Dr. Farquharson himself puts us on guard. After all his praise of moderation he honestly tells us that he cannot help us to a knowledge of its limits. He further clearly states that "all stimulant is unnecessary for the young, and for people living perfectly healthy lives." He only pleads for it as required by the stress and struggle of modern civilisation to help us round the corners, and to plane away the asperities of existence.

After all, Dr. Farquharson is a teetotaler in theory, a moderate drinker for the present distress. According to his own admission and teaching, he encourages among all ranks and classes the use of a dangerous drug for which ordinary rest and nourishment can in all but rare cases be substituted, and

simply because it is possible by it to superinduce some passing sense of satisfaction, soon followed, as in the cases which he deplures, by habits that enervate and ruin body and mind, "Why do you take it?" said one with a blue ribbon to a brother clergyman. "Because I like it," was the reply. This seems to Dr. Farquharson unanswerable. Yet he is aware of the danger of alcohol-using, and lays down intricate, elaborate rules how to drink in order but to avoid the perils of use. It is as "artificial products of an artificial age, often depressed, often worried, eating bad food badly cooked, breathing bad air, and crushed down by money difficulties, it is at these times, when responsibilities are around us, and the troubles of the world begin to close over our heads, that a cheering glass in strict moderation, and at carefully-selected times, is of real use, and can be defended both by physiology and common sense."

Such is the sum of Dr. Farquharson's case for moderate drinking. Alas! an old case of physical remedy for moral ill. What he describes as our artificial life is a state of things which seeks a moral remedy more than a physical: a high heart, a pure aim, a faith in God—not an anodyne or stimulus of drugs—a life whipped up or toned down by alcohol—but a life regulated by laws of health, by sense of duty to God, our neighbour, and ourselves.—*Temperance Record.*



## PROFESSOR HORSLEY ON THE ALCOHOL QUESTION.

At the annual meeting of the National Temperance League, held on the 2nd May, in Exeter Hall, under the presidency of the Bishop of London,

Professor VICTOR HORSLEY, M.B., F.R.S., said: My lord, ladies, and gentlemen, after the moving eloquence of the Rev. Charles Garrett, it is very difficult for a scientific man to put before you the alcoholic question as medical men may look at it, because we have to do so in perhaps a less moving manner than those who regard

it from simply the moral and spiritual side. We have to consider the question from the other side, and, as he has so very amusingly told us, from a point of view mainly as to whether a person is ill rather than well. A doctor's duty is not merely the curing of disease—the medical profession have always made it their duty to prevent disease. (Hear, hear.) This brings me at once to my duty this evening, and I see that I can best occupy the time that has been allotted to me in,

as it were, reporting progress to you as to what the medical profession has done and is doing at the present time. At the outset, I always feel more or less obliged to apologise that the medical profession has not done more; but, if you will bear with me for one moment, I will, by way of preface, venture to offer some sort of apology, and it is an easy one to offer. It simply amounts to this, that so long as medical science is a human science it must of necessity have very narrow limits, and therefore you cannot blame medical men if they hold on for an unreasonable time, as it may appear to many of us, to remedies which seem to have done good in the past. I assure you that is the sole reason why alcohol is used by the medical profession at the present time, even to the narrow extent to which it is used, and that Dr. Garrett has told us to a far narrower extent than it was even a few years ago. That is the apology which I venture to offer to you. Now coming to the point—What is the use by doctors of alcohol at the present time?—I believe that at this great meeting the facts and figures have been before stated to you, and I will therefore not go into details which might weary you, but will content myself with stating the point on its broadest basis. If you take the annual statistics on which we can rely, namely those obtained from hospital practice, you may take my word for it that they very faithfully represent what is done also in private practice. What are the facts as we learn them from hospital practice? They are that alcohol has enormously diminished, and that its place as a medicament is taken by that most innocent of all fluids—milk. (Cheers.) It means, ladies and gentlemen, that what you would call common sense has asserted itself and has won the day. I am perfectly certain that we shall never go back to the pernicious, misguided teaching of the late Dr. Todd. Dr. Todd put out the facts as he saw them with very great honesty, but with most unfortunate error. That error we now fully recognise, and equally avoid. Perhaps as a surgeon I may mention one more

fact, and that is the practice among medical men in surgery compared with what it was, for that is the branch of medicine of which I know most. I assure you that I was at a meeting of a hospital committee the other day, when the question arose of a slight increase in the expenditure on alcoholic drinks during the past quarter. I can assure you that each of the staff turned to his neighbour, and said, "It is not I." (Laughter.) And the surgeons, as I know from my observation, were all of them perfectly guiltless. In a large hospital it is now the practice of all the surgeons never to give the least alcoholic stimulant, unless the patient is *in extremis*. Before, it used to be a common article of diet to be written off just as so much medicine—so many ounces of brandy after an operation. Now, we do exactly the opposite; we cut it off absolutely and entirely. (Cheers.) But, ladies and gentlemen, if I may venture to speak from the other side of the profession, the medical side, that of the physician who deals with diseases of which he cannot see the progress, I can speak from reading as also from my personal experience. As I said, medical science being a human science is, of course, always advancing. Its limits are narrow, but it is always trying to overpass them, and it does so successfully. Curiously, however it may appear to you, one of the most deleterious effects of alcohol entirely escaped observation until comparatively a few years ago. A few years ago, if you spoke to a physician of alcoholic paralysis, he would have answered as an old physician did to a friend of mine a short time ago. He said, "I recognise no paralysis from alcohol, except the paralysis of a man who is under the dinner table and cannot get up again." (Laughter.) Now that was a perfectly honest opinion, for that physician did not know of alcoholic paralysis. It means a peculiar affection of the nerves of the body, produced simply and solely by the inordinate use of alcohol. That very disease is now recognised and fully worked out, and its treatment, I need hardly say, is equally well appreciated. That treatment can only

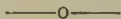
be what it is, viz., total abstinence. Ladies and gentlemen, that just shows us that even now we cannot say, medically speaking, what are all the injuries alcohol is doing. Under those circumstances every medical man is now recognising more and more his duty to attempt to prevent this great cause of disease. If you take up one of the medical papers and see when communication has been made to a medical society as to which is the avenue by means of which this great poisoning is going on, you will find that almost all the medical men say that in their opinion after the great cause of the public-house traffic it is the grocers' licenses. (Cheers.) I believe that if you were to poll the medical profession to-morrow on this point, whether the individuals drink or whether they do not, it would make no difference, they would all vote for the abolition of grocers' licenses. (Cheers.) Now what is the proof of this? One proof of it is that in addition to the ordinary diseases set up by alcohol, this alcoholic paralysis of which I have spoken is comparatively a recent discovery, is recognised by the profession to single out women rather than men. It is known to every minister of religion, as well as every professional man, that it is the women who suffer from the grocers' licenses, but what does that mean in general principles? It simply brings us back to the great question, viz., to do our best to diminish the ease with which alcohol can be obtained. I shall touch that point presently, but I wish to mention another of essentially a medical character. I have so far been speaking of the prevention of disease. I have alluded to the cure of disease, by total abstinence, but, ladies and gentlemen, a matter has arisen of late which has attracted the attention chiefly of our professional brethren on the other side of the Atlantic, but which is coming to the front in this country. Only so late as last week, I was glad to see that the *British Medical Journal* was drawing attention to it—it is the horrible iniquity practised upon those who endeavour to cure themselves of inebriety. It may be known to you that

in America it has been the system to attempt the cure of inebriety on a large scale by big homes, but it may not be known to you that in addition there are quite a crowd of patent medicines allowed to be sold by the Government with this so-called object in view, and these patent medicines are now being introduced into this country. Analysis has been made of these so-called cures for inebriety, and it is hardly credible that there should be human beings so vile as the compounders of these decoctions, when I tell you in some cases there has been actually found between 30 and 40 per cent. of alcohol. (Cries of "Shame.") Well, it a great deal more than a shame—it is a crime. (Cheers.) Many a weak man might say honestly enough, "Oh! I have seen Mr. So-and-so, who was satisfied with my taking such and such a cure. You had better try it." And one is quite unconscious of the fearful evil he has been thereby inflicting. The remedy for that is in the law. Would that that the law always helped us in the drink question! Ladies and gentlemen, one word more. I have alluded to the grocers' licenses as perhaps, after public-houses, the worst form illustrating the ease with which alcoholic drinks can be obtained. I can assure you that now as regards public-houses, which we recognise as the worst spring from which this evil takes its source, that if you were to poll the medical profession on that question they would say, "Cut off at once an enormous percentage of the public-houses." Let me illustrate an example of the fascination of the public-house to the working man. My wife once saw a working man come up to the door of a public-house in one of our provincial towns. She saw him put his hand in his pocket and hesitate, and then move away. I hardly like to say the number of times that that tragedy—because it was nothing else—occurred, but it certainly did so six times, and possibly more, but finally the man went in. That is a condition of affairs which medical men recognise. There is nothing better understood in the whole range of medicine than the



fascination which alcohol produces, and of course, popularly, there is nothing better understood in ordinary life, but I cannot believe that those who recommend the use of alcohol as a food—I cannot believe that these same people know also that the introduction which the use of it as a food

is to that unhappy person very often opens the door to a future course of inebriety. If it were so we should hear of it no more. Ladies and gentlemen, I have said enough on this point, and I thank you very heartily for the kindness and attention with which you have listened to me. (Cheers.)



## THE NATIONAL TEMPERANCE LEAGUE AND THE MEDICAL PROFESSION.

THE special efforts of the National Temperance League to influence the medical profession may be said to have commenced with Professor Miller's visit to London in 1862, when he was met by fifteen metropolitan physicians at the residence of Mr. Samuel Gurney, M.P. A number of suggestions were made at that meeting, and a small committee of medical gentlemen was appointed to consider them, but the interest felt by those to whom the matter was entrusted was not sufficient to ensure practical results, and the committee never presented a report.

The next definite attempt to reach the profession was made seven years later, in 1869, when a conference of medical abstainers was held at the Cannon Street Hotel, which led to important results. Papers were read by Drs. Munroe, Barber, Scatliff, Edmunds, Bennett, and Hawkins, and twenty medical teetotalers, who were unable to attend, sent papers or letters, from which extracts were read, and the whole were afterwards issued as a pamphlet under the title of "Medical Experience and Testimony in favour of Total Abstinence." Two recommendations were agreed to by the Conference, which were promptly adopted and successfully carried out by the Committee of the League.

The suggestion that the League should invite the members of the British Medical Association to a conference in connection with their next annual meetings was carried out at Leeds on the 29th July, 1869, when about 150 members of the Association assembled at breakfast under the pre-

sidency of Sir Edward Baines, who was supported by the Rev. Dr. Hannay and Mr. Samuel Bowly. The experiment proved remarkably successful. No fewer than twelve medical gentlemen took part in the after-breakfast proceedings, and, although only three of these were abstainers, the remarks of all were thoroughly hearty and sympathetic; it being clearly brought out by the speakers that the patient is generally more desirous than the doctor to employ alcoholic remedies, and that the difficulties of the profession would be greatly diminished if a larger proportion of the public were total abstainers. The invitation to a similar gathering was renewed in the following year, when the "Medical Parliament" met at Newcastle-upon-Tyne, and also in subsequent years at Plymouth, Birmingham, Norwich, Sheffield, Manchester, Bath, Cambridge, Ryde, Worcester, Liverpool, Cardiff, Brighton, Leeds, Birmingham, and Bournemouth.

Another result of the conference held in May, 1869, was the commencement, in October of the same year, of the *Medical Temperance Journal*, which has been continued quarterly since that time, and has done much to advance the movement by detecting and exposing fallacies relating to the medical and physiological effects of alcohol, by recording current facts and experimental investigations upon the subject, and by furnishing reliable accounts of the successful treatment of disease without the aid of strong drink. Its twenty-one volumes form a reference library of inestimable value



to all who wish to study the scientific aspects of the drink problem. My labours as managing editor have been greatly lightened by the cordial co-operation of Dr. Ridge and other members of the British Medical Temperance Association.

The Medical Declaration of 1871 may be regarded as one of the results of establishing the *Medical Temperance Journal*, as it was in that periodical (October, 1871) that an able article appeared by Dr. McMurtry, of Belfast, on "The Duty of Medical Men in relation to the Temperance Movement," which was noticed in favourable terms by the *British Medical Journal*, whose editor suggested that a conference of eminent practitioners should be held to consider how far the profession could aid in advancing the objects aimed at by the National Temperance League. On the appearance of that article I sought and obtained an interview with the editor of the *British Medical Journal*—Mr. Ernest Hart—who recommended that steps should be taken to ascertain the views of a few leading practitioners as to the desirability of convening such a conference as that which he had proposed. After endeavouring without success to secure the co-operation of several metropolitan physicians, I went by appointment to Netley, and had a most interesting interview with Dr. E. A. Parkes, Professor of Hygiene at the Army Medical School, who heartily sympathised with the object, but expressed doubts respecting the utility of a conference, and recommended a Declaration instead. Dr. Parkes kindly agreed at my request to draft such a Declaration as he thought the profession in general would be prepared to sign, and when the draft was completed it was submitted by me to Dr. Burrows, President of the Royal College of Physicians; Mr. Busk, President of the Royal College of Surgeons; Sir Thomas Watson, and Sir James Paget; each of whom suggested a few alterations, which were all adopted. These four eminent physicians and surgeons then signed the Declaration; after which it was presented, at Dr.

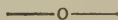
Burrows' suggestion, "to some of the senior and most distinguished members of the medical profession in London" for signature. In the following week, when twenty-eight influential signatures had been obtained by personal visitation, I sent a proof by post to the physicians and surgeons of the metropolitan and chief provincial hospitals, accompanied by a circular signed by Dr. Burrows, who, in a letter to the *Times*, on the 13th January, 1872, recounting these facts, said:—"Numerous letters were addressed to me in reply to the circular, from all parts of the country, and, with three exceptions, they all expressed their concurrence with the Declaration, and thanks to myself for the part I had taken in this important question." The Declaration, which was signed by 269 physicians and surgeons of eminence, was published in the medical journals a few days before Christmas, 1871, and by the close of the year it had found its way to the remotest parts of the kingdom, and was extensively criticised by the metropolitan and provincial press, whose comments were, upon the whole, exceedingly favourable to the sentiments enunciated in the Declaration. On New Year's Day, 1872, the Declaration, with the whole of the signatures, was inserted by the League as an advertisement in the *Times* newspaper, and about the same time they forwarded a copy of the document, together with Dr. McMurtry's pamphlet, to every medical practitioner whose address was given in the *Medical Directory* for 1872. This additional publication and distribution of the Declaration led to an extended discussion of the subject through the press, and many important letters and articles by eminent medical authorities appeared in the *Times* and other journals. The subject was afterwards discussed at the meetings of several medical societies, and there can be no doubt that the widely-extended discussion to which the Medical Declaration gave rise was exceedingly useful, in awakening the attention of the profession and the public to the real merits of the important questions

involved in the Temperance reformation.

During the winter of 1871-2 the National Temperance League commenced a series of Medical Meetings in Exeter Hall, the two first being addressed by Dr. B. Collenette, Guernsey; Dr. R. L. Bayley, Stourbridge; Dr. J. W. Beaumont, Sheffield; Mr. Benjamin Townson, M.R.C.S., Liverpool; Mr. L. M. Bennett, M.R.C.S., Winterton; Dr. James Edmunds, London; Mr. Richard Sleman, F.R.C.S., Tavistock; Dr. Henry Munroe, F.L.S., Hull; Mr. Henry Lankester, M.R.C.S., Leicester; Mr. F. L. G. Gunn, M.R.C.S., Surgeon to the 99th Regiment; Mr. J. J. Ritchie, M.R.C.S., Leek; Mr. Henry Dixon, M.R.C.S., Watlington; and Dr. J. A. Bowen, Preston. The medical meetings were continued in Exeter Hall during the three following years, and were also extended to the larger provincial towns, including Reading, Bristol, Exeter, Plymouth, Torquay, Bath, Cheltenham, Wolverhampton, Leicester, Liverpool, Birmingham, Brighton, Sheffield, Nottingham, Cambridge, Guildford, Canterbury, Sheerness, Coventry, Bradford, and Leeds. All of these meetings, held in 1872, were addressed by medical abstainers, and in other towns besides those named special afternoon gatherings of ladies were held, also

addressed by medical men, which excited great interest, and accomplished a large amount of good.

It would occupy too much space to describe the varied efforts adopted by the National Temperance League to influence the medical profession, but it ought to be mentioned that the meeting which resulted in the formation of the British Medical Temperance Association was convened by the Committee of the League and held at their rooms; that I was fortunate enough to initiate the arrangements that led to the delivery of Dr. Richardson's Cantor lectures on "Alcohol," at the Society of Arts, in 1874, which, with the talented lecturer's subsequent efforts, have exerted a powerful and far-reaching influence upon our movement; that in many unseen ways I have endeavoured during all those years to enlist the sympathy and co-operation of medical practitioners and students on the side of total abstinence; and that from no class of public men have I received greater encouragement in a difficult and arduous work than from those members of the medical profession with whom my professional duties have brought me into personal contact during my thirty years' residence in London.—  
*"Historical Notes and Recollections,"*  
by Robert Rae.



## SOCIETY FOR THE STUDY OF INEBRIETY.

THE eighth annual meeting of the Inebriety Society was held in the large room of the Medical Society of London, on Tuesday, 5th April. There was a large attendance, including a number of ladies. After tea and coffee had been served, Dr. Norman Kerr delivered a short presidential address, referring in feeling terms to the deaths of the Earl of Lichfield and Dr. Alfred Carpenter, who had been connected with the society, and took a deep interest in its operations.

Dr. KERR then gave some particulars of an appeal he had made on behalf of the Inebriates' Legislation Committee

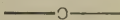
of the British Medical Association to the various temperance and allied societies on behalf of compulsory legislation for the habitual drunkard. Hitherto the temperance and general philanthropic bodies had opposed all such legislation, but the reception of this appeal revealed a marked change, such great temperance bodies as the Church of England Temperance Society had thoroughly adopted the compulsory platform, recognising a large number of inebriates not as willing offenders but as impelled by a physically diseased condition, and this influential association had formally endorsed the plat-

form of the Inebriety Society and had taken active steps in agitating for a change in the law. Other societies which did not make any official pronouncement on legislation had also approved the proposed action. The excellent Secretary of the Band of Hope Union had said to him (Dr. Kerr) that the disease aspect of inebriety and compulsory legislative dealing with it, was now fully accepted. The various female temperance associations had been specially emphatic and unanimous in approval of the society's legislative proposals. A number of large towns had also resolved to petition Parliament on the subject.

Dr. USHER, F.R.G.S., of Melbourne, was cordially welcomed by the president, and read a paper on "Some new methods of healing Alcoholism, with a theory based upon microscopical and other investigations as to the pathological conditions of the blood, and suggestions as to treatment." He dealt historically with the subject, and then spoke of the forms of Alcoholism, chiefly heredity and acquisition; also another, which he called infantile, brought about by the negligence and carelessness of patients in giving malt and spirituous liquors to children. At the present time there were nearly 100 asylums and retreats in the world for the treatment of this disease, and it was contended that heredity is the chief factor in nearly 60 per cent. of the cases; injuries and diseases accounting for another 20 per cent. He said that for some time it has occurred to him that Alcoholism, in its pathological relations, was not as well understood, nor was the information on the subject as full as that possessed of

other diseases. Following this for nearly two years, a course of experiments was entered into, and a singular and startling state of things was found in the blood of some severe cases of Alcoholism. To summarise, it might be said that the red blood-corpuscles—the leucocytes, or white cells—were found to have undergone extensive changes of a degenerative character. Added to which, more than a suspicion was raised that certain abnormalities in the brain and in some of the nerves pointed strongly in the direction of fungoid alterations, where germ-life might be supposed to have some connection. In reference to treatment he remarked that the modern remedies take us into the region of narcotics, as opium, atropine, cocaine, nervine tonics such as zinc, strychnia, gold, blood and nerve alteratives, arsenic, iron and quinine, and a host of vegetable remedies having some action on the digestive organs. Electricity, massage, and hypnotism are also being employed. Rest, isolation of the patient, good air, and judicious selection of food, should bring about beneficial results. Special attention must be paid to any disease or trouble apart from the inebriate condition. In conclusion, Dr. Usher stated that in a publication to be brought out shortly he hoped to be able to lay down a course of treatment that had proved valuable in his hands and which had been adopted by some other physicians, based upon deductions drawn from the pathological appearances of the blood.

A short discussion followed, and a vote of thanks was awarded to Dr. Usher for his paper.



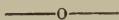
THE MORPHIA HABIT AND THE PROFESSION.—A physician of St. Louis, U.S.A., confidently asserts that there are in that city not less than twenty thousand victims to the morphia habit, the great majority of the victims being women of the well-to-do classes. He puts the blame on medical men, who, he says, too constantly resort to hypodermic injections of morphine as a cure for headaches and other minor ailments, or as a stimulant in cases of nervous prostration or fatigue, with the result of creating the craving, which soon becomes irresistible. He admits that medical men invariably warn their patients of the danger of the habit, but in spite of this warning the habit grows upon them and speedily becomes a mania.—*Medical Press*.



## NO ALCOHOL IN APOPLEXY.

DR. ANDREW WILSON, dealing in *Lloyd's Weekly Newspaper*, of the 5th June, with apoplectic fits, says:—"The most likely people to suffer are persons beyond middle age of a 'full' habit of body. This is not always the case, of course, but apoplexy is, typically, an ailment of middle life, and beyond it. It is also an ailment liable specially to affect drunkards; for in them the blood-vessels are weakened by the alcohol, and rendered more liable to rupture. The face of the apoplectic man is flushed. Hence, you see, it can't be a fainting fit he suffers from; and, as he doesn't throw himself about, it can't be an epileptic fit, of which I wrote last week. Then the breathing has a snoring, or, as it is called, stertorous character, and when you look at the face of the patient you may see the mouth drawn a little to one side. This is the effect of the 'stroke,' or, in other words, of the injury to the brain, and on the same side the arm and leg will be more or less paralysed and non-sensitive. The patient may or may not be able to speak distinctly, according to the extent of the shock and of the brain's disturbance.

"When a fit of this kind is met with bear in mind the golden rule to loosen everything about the neck and chest. Get the patient to bed in a quiet, airy, darkened room. Raise the head slightly, for your work here is just the opposite of your treatment of the fainting fit described last week. There you had to keep the head low because the brain wanted blood: here you keep the head high or raised, because you want to promote the easy flow of blood from the brain. Disturb the patient as little as you possibly can. See that the room gets plenty of fresh air, and you may apply cold water or wet cloths to the head. Then send for the doctor. You have done all you can—with one exception, and that is:—*See that no stimulants are given to the patient.* This is very important. If you give brandy or whisky to an apoplectic man you may kill him. The heart has to be kept quiet. You don't want an increased supply of blood to go to the brain, and you will send it additionally fast if you give stimulants. Therefore remember 'no stimulants for an apoplectic fit.'"



## CLINICAL EXPERIENCE AS TO ALCOHOL.

DR. EZRA M. HUNT, sanitary editor of the *New York Independent*, in a recent article, writing of "Clinical Experience as to Alcohol," says:—

"While exact clinical experiment and experience now narrows the sphere of alcohol, it regards it as available in sudden shock from injury, chiefly in the form of hypodermic injection with digitalis, as also for temporary use in sudden prostration until nutrients and other restoratives become preferable in its place, as is quickly the case. There is a narrow stage of fever and debility in which alcohol may be available; but it is to be borne in mind always that the stimulant effect is that of a neurotic. Since we have come to know the value of the various

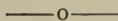
peptonoids and of their combinations with beef, gluten, milk, and flavouring oils or condiments, there is far less need for alcoholics. The appetising effects of wines, &c., result full as much from flavours, such as ænanthic ethers developed in them from the acidity, as from the alcohol itself; the fattening effect of beer to some results from the malt, &c., which now has an excellent substitute in the syrupy malt extracts. Alcohol as it comes to derange organs, especially the liver, has much the same effect as is produced by a forcing process upon the livers of geese, which become abnormal. The more such geese weigh and the better they look, so much the worse for the geese. No doubt by the clogging of organs there



may be retention of materials and pent-up secretions which add slightly to the bulk of weight; but it is only a storage tending to disease and not a storage of health.

"The day is passed when, upon dietetic and medicinal grounds, there is any indispensable call for the moderate or habitual use of alcoholic beve-

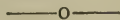
rages. In the midst of the various alcohols and of all the manufactured and concocted mixtures which are now sold, as if they were the real and pure product of the grape or of alcoholic distillation, we have better known tonics and nutrients which effectually take their place, except to those who wish them as pleasure-giving drinks."



## THE TREATMENT OF REDUCIBLE HERNIÆ BY THE INJECTION OF ALCOHOL.

EDWARD STEFFEN, of Zurich, during the past three years, has treated 326 cases of reducible herniæ by Schwalbe's method, and has published the results in the *Correspondenzblatt für Schweizer Aerzte*. In most instances the patients were able to continue their work during treatment. After the injection the puncture was cleaned and covered with mercurial collodion. Notwithstanding, in a few cases, sloughing took place: but this acted rather beneficially than otherwise. The number of injections in a single case varied from six to 168, the latter extending over a period of two years and a half. A medium-sized rupture in an adult required from eighty to 100 grammes of alcohol. The author used alcohol seventy per cent. in doses of one to four grammes, substituting in exceptional cases extract of oak bark. Latterly he found the addition of phosphoric acid, in the proportion of one to 200, advantageous. In thirteen cases the

result of the treatment is not known, in twenty-nine a cure was not possible from various causes, such as obesity or size of the rupture; of the remainder 245 cases are reported cured and nineteen improved. The longest time taken to effect a cure was four years, the shortest one year. Of 257 inguinal herniæ, 216 cases were cured and sixteen improved, with twenty-three relapses. Of thirteen femoral herniæ, nine were cured and two improved, with one relapse. Of nineteen umbilical herniæ, seventeen were cured, with no relapses. Of four herniæ in the linea alba, three were cured, and the other improved. It appears that the more recent the hernia and the younger the patient the more favourable the prognosis, and the ambulant treatment, with intervals of three to seven days between the injections, gave better and more lasting results than the treatment in bed with daily injections.—*Lancet*, March 19.



AMERICAN MEDICAL TEMPERANCE ASSOCIATION.—The American Medical Temperance Association was founded in Washington, on May 7th, 1891, when sixty-one members were enrolled. The objects of the Association are to advance the practice of total abstinence in the medical profession, and through it among the general public; and to promote investigation as to the action of alcohol in health and disease. No pledge is required from members, but it is expected that members who may cease to be total abstainers will withdraw from the Association. The right to prescribe alcohol as a medicine is retained by members. A meeting of the Association has recently been held at Detroit, under the presidency of Dr. N. S. Davis. Dr. T. D. Crothers, of Hartford, Conn., is the Secretary of the Association.—*British Medical Journal*.

## British Medical Temperance Association.

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*President.*

Dr. B. W. RICHARDSON, F.R.S.

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### CONDITIONS OF MEMBERSHIP.

Personal abstinence from all intoxicating liquors as beverages. Every registered or registerable British or Irish medical practitioner is eligible.

ANNUAL SUBSCRIPTION. Not less than Five Shillings.

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### ENGLISH BRANCH.

#### NEW MEMBERS.

J. T. BOYD, Esq., Lavender Hill, S.W.	Dr. F. JOHNSON, London, E.C.
Dr. BURR, Kensington, W.	Dr. W. W. KENNEDY, Lewisham, S.E.
Dr. CLARK, Newcastle.	Dr. LAING, Blyth.
Dr. W. A. CLARK, London, E.C.	Dr. MAWSON, Manchester.
Dr. COLEY, Newcastle.	Dr. RUTHERFORD, Newcastle.
Dr. CROMIE, Blyth.	Dr. F. B. RUTTER, Dalston, N.E.
Dr. DURANT, Newcastle.	Dr. H. L. RUTTER, Dalston, N.E.
Dr. H. A. ECCLES, London, E.C.	Dr. W. L. SOUTTER, Finsbury Park, N.
Dr. FOGGIN, Newcastle.	Dr. M. W. SOUTTER, " "
Dr. HAGUE, Brixton Road, S.W.	Dr. TRACEY, London, E.C.
Dr. INGLE, Cambridge.	Dr. WELCH, Nantwich.
Dr. IRVING, Leytonstone, E.	C. S. WOODD, Esq., Tavistock.

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### SCOTTISH BRANCH.

#### NEW MEMBERS.

Dr. D. W. GIRVIN, Maybole.		Dr. J. J. WILSON, Anstruther.
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#### NEW ASSOCIATES.

W. R. FORBES, Esq., Edinburgh.		C. J. C. KINGDON, Esq., Edinburgh.
A. HILL, Esq., Glasgow.		A. M. STEWART, Esq., Glasgow.

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### IRISH (CENTRAL) BRANCH.

#### NEW MEMBER.

Dr. LAWLESS, Sligo.

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### NOTICE.

Members who have not paid their subscriptions for 1891-92 are respectfully reminded that the Association is in debt to the Treasurer, and that this debt would be expunged if all arrears were paid up.

Members intending to be present at the annual meeting of the British Medical Association at Nottingham are requested to communicate with the Hon. Secretary.

J. J. RIDGE, *Hon. Sec.*

*Enfield, June, 1892.*

## THE ANNUAL MEETING.

THE annual meeting of the British Medical Temperance Association was held on Tuesday, 31st May, at 20, Hanover Square, London, W. The chair was occupied by the President (Dr. B. W. Richardson), and the members of the medical profession present were:—Dr. D. R. Powell Evans, Dr. Frederick John Gray, Dr. John Moir, Brigade-Surgeon F. E. McFarland, Dr. W. T. Burr, Dr. T. Morton, Dr. H. W. Williams, F. Churchill, Esq., Dr. Ridge, and Dr. Heywood Smith.

The report for the year 1891-2, read

by the Hon. Sec. (Dr. J. J. Ridge), was as follows:—

During the past year thirty-eight new members have joined the Association, thirty-two belonging to the English Branch, four to the Scotch, and one to the Irish (Central). There have been ten additions to the number of Associates, who are registered medical students; two being English; four Scotch; and four Irish.

After deducting the losses by death and resignation, the numbers are as follows:—

	MEMBERS.				ASSOCIATES.
England and Wales ... ..	...	...	...	268	20
Scotland ... ..	...	...	...	49	41
Ireland (Central) ... ..	...	...	...	43	20
Ireland (North) ... ..	...	...	...	41	—
Abroad ... ..	...	...	...	14	—
Total ... ..	...	...	...	415	81

There is a net increase of eighteen members during the year.

During the sixteen years that the Association has existed, the total number of medical practitioners who have joined is 620, and Associates, 150.

After the last Annual Meeting in May, a paper by Dr. Cosgrave was read, entitled "Alcoholic Self-Delusion."

In November last a meeting was held in Belmont Hall, Clapham, London, to which the medical practitioners of the district were invited. Dr. Richardson presided, and gave an address, and a useful discussion followed; those present, and others were afterwards entertained by Mr. and Mrs. Caine.

A meeting was also held in the rooms of the Royal Medical and Chirurgical Society, at which Dr. Crespi gave an address on the "Adulterations of Alcoholic Liquors."

The third examination of medical students in their third year was held in February. There were nine entries, six from England, and three from Scotland. The examiners were Drs. Richardson, McKendrick, Moir, Morton, Simpson, and Sinclair.

The Council desires cordially to thank those members who have generously responded to their appeal for an increase in the amount of their subscriptions, by which it has been possible to reduce the debt that had gradually accumulated. The margin which remains after paying for the quarterly journal, when the subscription is only five shillings, is so small that very little could be done but for the larger sums which some give. Many members, too, omit to send their subscriptions even when applied for, and yet the Council feels that it is very important to send the *Journal* to such in order to stimulate their interest in the Temperance cause. If the funds permitted, the Council would also like to send copies of the *Journal* and other Temperance publications to medical men who have not yet seen their way to become abstainers. It is almost impossible to reach such gentlemen in any other way, though there have been some notable exceptions, more particularly the debate on Alcohol at the Bournemouth meeting of the British Medical Association, at which, though the subject was opened in a very frivolous manner

by Dr. Wilks, the opportunity was afforded for the enunciation of some important truths by Dr. Drysdale, Dr. Norman Kerr, the Hon. Secretary, and others. Another opportunity was afforded by the discussion on Alcohol at the International Hygienic Congress in London.

It is partly with a view of augmenting our income, and so enabling us to do more missionary work, that the Council recommends the admission of non-medical abstainers as Associates on payment of an annual subscription of one guinea, at the suggestion of one who is much interested in the scientific presentation of the question.

The Council feels it due to A. E. Eccles, Esq., and R. Cadbury, Esq., to express their warm thanks for their generous contributions to the Prize Fund, and regards this annual examination of students as a most promising and important means of leavening the profession of the future.

The Council, while not responsible for the contents of the *Medical Temperance Journal*, desires to express its appreciation of the advantage derived therefrom through the generosity of the National Temperance League, and to inform the members that original contributions are always welcome to the Editor, such as will prove helpful in the extension of knowledge and the moulding of professional opinion in the direction of total abstinence.

We have to regret the loss by death of several members during the year, among whom may be specially mentioned our esteemed Vice-President, Dr. Alfred Carpenter, Dr. MacLagan, of Berwick, and Rev. Dr. Lowe, the Secretary of the Medical Missionary Society. The loss is great, but we believe that through their influence and testimony, many others will rise up to take their place and carry on their work.

Dr.	BALANCE SHEET, 1890-91.			Cr.
	£	s.	d.	£ s. d.
To Prize Fund 1890-91 brought forward . . . . .	13	10	0	
„ Additional Subscriptions to . . . . .	3	4	0	
„ „ from Irish Branch . . . . .	1	5	0	
„ Members' Annual Subscriptions . . . . .	77	2	6	
„ Subscriptions to Prize Fund 1891-92 . . . . .	14	6	6	
„ Balance due to Treasurer . . . . .	8	7	7	
	£117	12	7	
By Balance due to Treasurer, 1890-91 . . . . .		3	5	9
„ Prizes 1890-91 presented . . . . .		15	0	0
„ <i>Medical Temperance Journals</i> . . . . .	60	14	11	
„ Printing and Stationery . . . . .	12	4	0	
„ Advertising . . . . .	2	11	8	
„ Stamps and Wrappers . . . . .	6	8	11	
„ Expenses of Meetings . . . . .	2	14	6	
„ Medical Directory . . . . .	0	10	6	
„ Bank Charges . . . . .	0	0	10	
„ Prize Fund, 1891-92, unexpended . . . . .		14	6	6
				£117 12 7

Audited and found correct,

RICHARD LORD, M.D.

WILLIAM J. CORYN.

After the report and balance-sheet had been adopted and other formal business transacted,

Dr. JOHN MOIR read a paper entitled "A Medical Lecture on Alcohol Fifty Years Ago." He explained at the outset that the lecture was delivered in 1837, by Dr. Henry William Dewhurst, M.D. Edin., late resident

surgeon to the St. John's British Hospital, and who held appointments at three other London hospitals. In bringing it before this Association, he (Dr. Moir) thought it might be useful for them to see what progress had been made, or how far the men who had preceded them were acquainted with the subject, and whether, after all,



they had only ripened the experience which was gained by former observers. Dr. Dewhurst had written this lecture from observations acquired during his experience in the metropolis, and he was able to speak of the injurious effects of stimulating beverages upon the human system, having observed those effects from the trivial headache of the first drunken bout, through all shades and degrees, to death itself. As house-surgeon in a large London hospital he had witnessed in the neighbourhood the extensive system of dram drinking, and had observed the many morbid appearances which present themselves on the dissection of drunkards after death. Every vegetable substance which contained sugar gum, starch, or similar principles, when diluted with water and exposed to a certain degree of temperature, underwent fermentation, during which the ultimate components of those principles entered into new combinations, the result of which was the formation of alcohol or rectified spirit. Hollands, Dr. Dewhurst stated, was discovered by Sylvius, a Leyden professor of the middle of the seventeenth century, and was first sold in the chemists' shops as a diuretic, as the sweet spirits of nitre and other articles are at the present time. As the people drank it with avidity at other times than when diuretic medicines were required, it soon became an article of general use, and has had an enormous sale since that period. English gin was a modification of the Geneva, or Hollands, being free from the oil of juniper and rectified with oil of turpentine instead. The Irish usquebaugh, or whisky, and the English aqua vitæ, were compound spirits originally, containing, besides the spirits and water, saffron and other spices, and were extensively used medicinally. The ill-effects of an overdose of this spirit were well-known, one of its Irish names being *Builceann*, or "head-maddener." Drunkenness was mentioned in the early history of the Jews, and we were informed by Tacitus that it was prevalent amongst the ancient Germans, and it was tolerably evident

from the ancient poets and satirists that it was frequent amongst the higher classes in Rome. The vice was noticed in its worst forms in the writings of the most ancient medical authors. Indulgence in the use of intoxicating liquors was allowed after a certain age by some of the ancient sages, as Plato, Socrates, &c.; and Horace stated that Cato, the censor, often warmed his virtues by wine. Drunkenness increased among the ancients with the increase of luxury, and at last the ladies occasionally addicted themselves to intoxication. To such an extent did the drinking customs spread that Charlemagne was compelled to issue an edict to oblige the judges on the bench and the pleaders at the bar to keep sober during the discharge of their duties. The Gallic feasts generally ended in bloodshed. In the thirteenth century the use of wine declined in England, and in the time of Henry III. ale became the common drink of the country. Alehouses were first licensed in the reign of Henry VI., and in that of Henry VIII. hops were first employed in brewing ale. Hence arose the doggerel couplet at this period—

"Hops, heresy, pickerel, and beer  
Came into England all in one year."

When the strongest and most concentrated alcohol was introduced into the stomach it inflamed the mucous membrane, and soon destroyed its vitality. The shock was rapidly conveyed to the brain through the medium of the nerves, and persons had been known to die in so short a time after the exhibition of the spirit that its absorption into the circulation of the blood could not have taken place, but it must have acted directly on the nervous system. In a more diluted form, it acted less energetically and produced intoxication. The powers of voluntary motion then entirely failed, the mental faculties were suspended, and in the most severe cases sensation was completely lost. The sleep resembling apoplexy, which was induced during intoxication, was a wise provision of nature to restore the exhausted excitability of the system.

He said "the sleep like apoplexy," for it was different from the sleep of nature and health, and not unfrequently terminated in true apoplexy. How numerous had been the instances of sudden death from drunkenness? These were cases where this sleep had been the prelude to death? and in the majority of cases where death had occurred, it had been from apoplexy. But supposing the individual awakes after awhile—in what condition was he found? He did not awake as though he had been partaking of

"Tired Nature's sweet restorer—  
Balmy sleep;"

but both physically and mentally suffering from his drunken fit, his hands tremulous, his limbs weak and unsteady, his stomach nauseating all kinds of food, his thoughts gloomy and desponding, his temper irascible, and, if every moral principle of his nature was not destroyed by excessive repetitions of the vice, his mind was overpowered with the most distressing sense of degradation. Individuals might be predisposed to diseases of various kinds according to the degree of the indulgence in intoxicating liquors. Slighter excesses in the use of fermented liquors—particularly wine and malt beverages—caused fulness of habit when the patient became predisposed or liable to all the consequent ills, especially gout, palsy, apoplexy, and congestion of the organs contained in the abdomen, viz., the liver, stomach, and digestive apparatus. Greater excesses and the too free use of spirits produced an opposite state of the system, occasioning emaciation, tremors, nervousness, fearful dreams, delirium tremens, brain fever, epilepsy, paralysis, hypochondriasis, insanity, idiocy, diseases of the heart, eruptions of the skin, affections of the digestive organs, inflammation and actual changes of structure in the liver and adjacent parts, jaundice, diabetes, visceral obstructions, dropsy, and premature old age. To this terrible list Dr. Trotter added rheumatism, pleurisy, inflammation of the eyes, tumours, ulcers, lockjaw, and diseases of infants. Drunkards were, besides,

particularly predisposed to infectious diseases; and the most trivial operations in surgery performed on drunkards often ended fatally. In seven cases of that very fatal disease, inflammation of the veins, after bleeding at the arms, six occurred in confirmed drunkards; and every case he had seen of erysipelas, after the removal of very insignificant tumours on the head and face, which terminated fatally, occurred in persons accustomed to an excessive use of intoxicating liquors. It had been observed that seven cases out of every ten of malt liquor drunkards died of apoplexy or palsy. In a case of apoplexy arising from drinking a large quantity of gin, the late Sir A. Carlisle observed on dissection that the odour of the spirits was detected in the serum effused in the ventricles of the brain. Habitual intemperance had a surprising effect in anticipating the effects of age; it often displayed the indications of decrepitude ere its victims had passed the meridian of life. With regard to the lungs it had been remarked that drunkards were particularly liable to consumption, but this could not be included in the list of diseases to which they were more particularly subject, although incidentally it undoubtedly was brought on by intoxication—the patient being repeatedly exposed to those causes (cold, damp, night air, &c.) which would excite this disease. The germs of consumption certainly might be sown in the children of intemperate parents; these may inherit the craving for intoxicating liquors, and their intemperance might very much hasten the development of this dreadful disease. The lecture concluded with a special appeal to parents to become total abstainers for the sake of their children, if for no other reason.

The CHAIRMAN, in proposing a vote of thanks to Dr. Moir, said he had been particularly interested in Dr. Dewhurst's remarks with reference to the bleeding of drunkards. He (the chairman) remembered an uncle of his in the profession who used to have the regular spring and autumnal bleedings, and he was always afraid

when bleeding a drunkard that he would bleed to death. The flow of blood through the vein could not be stopped, the fibrine being largely destroyed, or rather the power of coagulation being decreased. As to drunkards being liable to consumption, he was not aware that anything on that subject had been said prior to his paper on "Alcoholic Vices." His point, however, was that a form of consumption was specifically alcoholic, that in certain men in middle age there would be about thirty-six in a

thousand deaths from the disease brought on by the excessive use of alcohol. There were two moderate illustrations of this kind in the Temperance Hospital at the present time.

Dr. MOIR said that as regards the age of death from consumption due to alcohol, his experience had been that they were older than the usual age—that was to say, between fifty and fifty-five.

The vote of thanks was seconded and carried, and the meeting then separated.

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## Notes and Extracts.

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THE LOCAL TREATMENT OF CANCER BY ALCOHOL. — Last June Dr. Schultz, of Buda-Pesth, injected alcohol into the cervix uteri, with a view to check the growth of a cancer, either by destruction of the bacteria, if specific germs exist in malignant disease, or by coagulating albumen in the tissues, and destroying the cellular elements. The result was so satisfactory that he has tried it altogether in ten cases of uterine cancer, and claims that his treatment, which is fully described in the *Centralblatt für Gynäkologie*, April 2nd, 1892, at least arrests the growth of a cancer. The patient is placed in Sims' position, a Sims speculum is introduced and the meatus urinarius is guarded with wool lest it should be hurt by drops of alcohol falling on it. An instrument about five times the size of a hypodermic syringe, but otherwise similar, is employed. Five cubic centimetres of absolute alcohol are thrown up. The needle of the syringe should be passed about an inch into the cancerous tissues. This causes some pain, which, however, does not last long. The injections may be made daily or every other day, and the vagina should be packed with a strip of iodoform gauze after every injection. After about thirty applications of the syringe the cancerous tissue, in the

cases under Dr. Schultz's treatment almost disappeared, and epithelium grew over the eroded surface of the disease. How long this condition will last, observes Dr. Schultz at the end of one of his clinical reports, the future will show. — *British Medical Journal*, April 30.

PREDISPOSITION TO ALCOHOLISM. — Dr. Edward C. Mann says (*Va. Med. Mo.*) that State medicine should declare to the newly-married that by indulgence in alcohol they will surely transmit to their child the qualities of a brain whose temper has the flow of a predisposition to degenerate mental function. We all know, if we are scientific men, that moral feeling and will are impaired or destroyed by degeneration going on through generations, by the disorganising effects of disease, and by direct physical injury to the brain. It is the duty of those interested in State medicine to keep constantly before the public the fact that the same effects are produced by the chemical action of alcohol, which, when taken in excess, are poisons to the brain. We should teach them, even as children, that the alcohol enters the blood, is carried by it to the brain, producing an abnormal state of its finest, latest organised, and least stable parts, ruining their moral feeling and their will, and producing



the disease of inebriety, epilepsy, idiocy, and insanity; making them a burden on the State, and plunging their families in social misery. The source of the cause of intemperance we shall find in ourselves and in our ancestral antecedents, and to suppress it we must eradicate it in ourselves and in our posterity.

**MODERATE INDULGENCE IN ALCOHOL.**—The way in which persons often become the unconscious victims of alcohol is stated by the *Feuille de Hygiene et de Police Sanitaire*, of Neuchâtel, Switzerland, as follows:—

“The small doses frequently repeated, small glasses of liquor regularly taken each day, are what make of an honest citizen a victim of alcoholism without his having ever, perhaps, passed through a state of complete intoxication, and without his having suspected the danger to which he was exposed.”

It is this habitual moderate use of alcohol which not only thus establishes the habit of drinking as a personal bondage for those who indulge in it, but which is also often attended with most disastrous after-effects in accordance with the law of heredity as shown in the descendants of such drunkards. Many who would be shocked at the thought of being helplessly drunk, do not see any harm or any danger in the “moderate” use of alcoholic beverages, and thus become, without suspicion, a prey to the overmastering alcohol habit.

**VITAL STATISTICS OF TOTAL ABSTAINERS.**—It is interesting to learn that the annual report of the United Kingdom Temperance and General Provident Institution for 1891 confirms the experience of the previous twenty-five years. In the Temperance Section the expected deaths were 321, and the actual deaths 240, or 70·8 per cent.; in the General Section the expected deaths were 386, and the actual deaths 425, or 110·1 per cent. The total deaths in the twenty-six years in the Temperance Section were 3,663, that is 70·7 per cent. of the 5,177 expected deaths; in the General Section they amounted to 7,034, or 97·5 per cent. of the 7,277 expected deaths. For these figures we are indebted to

Dr. J. J. Ridge, Honorary Secretary of the British Medical Temperance Association.—*British Medical Journal*.

#### HABITUAL DRUNKARDS COMMITTEE.

—The Committee appointed by the Home Office to inquire into the best mode of dealing with habitual drunkards held their second meeting, on the 16th June, at the Home Office. Mr. John Lloyd Wharton, M.P., the chairman, presided, and the other members present were Sir William Guyer Hunter, K.C.M.G., M.D., M.P., Mr. Charles Stewart Murdoch, Mr. David Nicolson, and Mr. James Granville Legge, secretary. Mr. De Rutzen, the metropolitan police magistrate, and Mr. James Munro, ex-Premier of the colony of Victoria and present Agent-General of that colony in London, were examined, and the committee adjourned till after the general election.—*Times*.

**THE MEDICAL ASPECTS OF ALCOHOL.**—Dr. Henry Wilcox, of Fleet, Hants, writes:—“In a recent issue of the *Medical Temperance Journal*, there appears under my name a paper on the Medical Aspects of Alcohol. Please allow me to state that a great deal of that paper is taken without acknowledgment from the able and valuable work of Dr. John Johnston, of Bolton. I sincerely regret this, and wish to make what amends I can. In the place in which I lived before moving into this village in which I now reside, I used occasionally to give brief lectures in the parish schoolroom on various subjects. In lecturing on the subject of Temperance I used to make free use of extracts copied from Dr. Johnston's writings. After removing I was again asked to give an address on Temperance, but was disinclined to do any more lecturing. Being pressed I offered to put together the notes from which I used to speak and make them into a little pamphlet for private distribution in this parish. This pamphlet was forwarded to you for publication without my knowledge. This is the explanation I wish to offer, and for which I owe an apology both to you and to Dr. Johnston.”











